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SOUTH COVE URBAN RENEWAL AREA

MASS, R-92

GENERAL INFORMATION AND RECUIREMENTS

REHABILITATION PROPOSALS



R-3D-I - 20 PINE STREET

R-3D-2 - 237-239 HARRISON AVENUE

BOSTON REDEVELOPMENT AUTHORITY
ROBERT J. RYAN, DIRECTOR



R-3D-1 R-3D-2

- 1. Rehabilitation proposals may be submitted for one or both parcels listed in this offering.
- 2. A suggested Letter of Intent is included in this kit and must accompany each submission of a proposal for the rehabilitation of the properties.
- 3. It is the intention of the Authority that R-3D-1, 20 Pine Street, shall be rehabilitated for residential use.

R-3D-2 shall be rehabilitated for residential use on the upper floors with commercial on the ground floor,

However, alternative proposals will be reviewed.

- 4. Disposition price of the properties will be determined by independent appraisers after submission of the plans and will be subject to Department of Housing and Urban Development concurrence.
- 5. Proposals will be evaluated on the basis of their conformity with the requirements of the Developer's Kit, State and City building and zoning codes and with the land use and building controls of the South Cove Urban Renewal Plan.
- 6. If there is in the opinion of the Authority an insufficient number of developers who indicate interest in rehabilitating the property, the Director may request the Authority to readvertise the availability of the properties.
- 7. The Authority reserves the right to reject any or all proposals submitted for the proposed rehabilitation.
- 8. The developer will be required to specify the form of entity that will take title to the property, cause the property to be rehabilitated and rent the completed units. The developer will be required to demonstrate that he has the authority to carry out these activities and indicate the type of financing program contemplated to complete the rehabilitation of the property. The enclosed Redeveloper's Statement for Public Disclosure must be submitted with the Letter of Intent.
- 9. All development proposals will be judged in accordance with the stated criteria; with special consideration being given to:
 - Displaced families and/or relocatees from project area;
 - Local businessmen and community residents who intend to be owneroccupants;
 - 3. Other interested developers.
 - 4. Quality of design and soundness of program that will complete the highest quality of rehabilitation in the shortest time.
- 10. Appoints for inspection of the buildings can be made with the office of the Project Coordinator by calling 722-4300, X215.



SUBMISSION OF LETTER OF INTENT

Letters of intent, addressed to Wm. Arthur Reilly, South Cove Project Coordinator, Boston Redevelopment Authority, Boston City Hall, Boston, Massachusetts 02201, must be submitted by 5:00 P. M. on Friday, A April 27, 1979, and must be accompanied by all of the documents referred to in the advertisement dated Sunday, March 25, 1979. Developers should submit completed form HUD 6004, Redeveloper's Statement for Public Disclosure and Statement of Qualifications and Financial Responsibility. Any addition information respecting financial responsibility, such as tenancy commitments, if any; equity commitments from other sources, if any; morgage loan discussions and preliminary letters of commitments should be included. These documents should be clear and concise, leaving no margin for interpretation, in order to enable the Authority staff to properly evaluate all proposals.

After the Staff of the Authority has reviewed and evaluated all the proposals and materials submitted with the Letters of Intent, they may recommend to the Authority the necessary public disclosure of the name of the developer, together with the names of its officers and investors, if any, and the terms of the proposal to be made, in compliance with the policies and procedures established by the Boston Redevelopment Authority and in accordance with Federal regulations.



DESIGN CONTROLS

The exterior rehabilitation of the building should be as straightforward as possible with little or no addition to the facades.

The principle should be to make good or repair existing materials.

Any change of materials to the facade or additions will be subject to Design Review by the Authority's staff and will be evaluated by the degree to which the integrity of the existing facades are maintained.



LUSE PARCEL: R-3D-1
ADDRESS: 20 Pine Street - South Cove TYPE OF CONSTRUCTION: Brick III OWNER: B.R.A. EXISTING OCCUPANCY: 3 Family Vacant LEGAL OCCUPANCY: PROPOSED OCCUPANCY: 3 Family ESTIMATED REHAB COST: \$92,040 00 REHABILITATION SPECIALIST: Morrison DATE: 2/1/79 The necessary rehabilitation to meet the South Cove Renewal Plan -consists of the following: EXTERIOR: 500.00 1. New entrance doorways. 2. New windows. 2,400 00 3. Repair and rebuild where necessary, all masonry walls. Point building. 15,000.00 4. Repair fire balconies and stairs. 1,500.00 5. Install asphalt shingle roof. 1,500.00 6. Install new gutters, flashing, conductors and skylights. 1.000.00 7. Repair existing penthouse. 8. Paint trim complete. INTERIOR: 1,000.00 1. Remove debris. 2. Repair floors and stairs throughout. 3.000.00 3. New plaster ceilings, walls and trim. 18,000.00 4. Install a new heating plant and new radiation. 7,000.00 5. Install a new plumbing system, including supplies, waste and vents, and gas service. 4,000.00 6. Install a new electrical service and fixtures. 5,500.00 7. Install a new concrete basement floor, fire-resistant 1,800.00 ceiling. 11,400.00 8. Install new kitchens, bathrooms. 9. Install emergency lights and smoke detectors. 500.00 10. Complete redecoration of all units and public spaces. 2,000.00 SUB TOTAL \$ 76.700.00 OVERHEAD, PROFIT, TAXES 15,340.00 TOTAL ESTIMATED REHAB COST 92.040.00



. L Chine EL: A-5D2

ADDRESS: 237-239 Harrison Ave.

TYPE OF CONSTRUCTION: 3B

OWNER: B.R.A

EXISTING OCCUPANCY: Vacant

LEGAL OCCUPANCY: Mixed use 2 D.U. 1 store

PROPOSED OCCUPANCY: Same

ESTIMATED REHAB COST: \$115,680.00

REHABILITATION SPECIALIST: H. Randolph DATE: 2/1/79

The necessary rehabilitation to meet the South Cove Renewal Plan consists of the following:

EXTERIOR:

1.	New entrance doorways.	\$_1,400.00
2.	New windows.	4,000.00
3.	Repair and rebuild where necessary, all masonry walls.	
	Point building.	10,000.00
4.	Repair fire balconies and stairs.	3,000.00
5.	Install new tar and gravel roof.	3,000.00
6.	Install new gutters, flashing, conductors and skylights.	2,500.00
7.	Repair existing penthouse.	1,000.00
8.	Paint trim complete,	2,500.00

INTERIOR:

1 Remove debris.

	TCMOVC GCD1131	2,000.00
2.	Repair floors and stairs throughout.	5,000.00
3.	New plaster ceilings, walls and trim.	8,500,00
4.	Install a new heating plant and new radiation.	9,500.00
5.	Install a new plumbing system, including supplies, waste	,
	and vents, and gas service.	12,000.00
G.	Install a new electrical service and fixtures.	8,500.00
7.	Install a new concrete basement floor, fire-resistant	
	ceiling.	3,000.00
8.	Install new kitchens, bathrooms.	14,000.00
9.	Install emergency lights and smoke detectors.	1,000.00
a.	Complete redecoration of all units and public spaces.	5,000.00

SUB TOTAL	\$ <u>96,400.0</u> 0
OVERHEAD, PROFIT, TAXES	19,280.00
TOTAL ESTIMATED REHAB COST	115,680.0

2.500.00



Published in Boston Herald-American March 22, 1979

REHABILITATION OPPORTUNITY

SOUTH COVE URBAN RENEWAL AREA

The following properties in the South Cove Urban Renewal Area are available for purchase and rehabilitation in accordance with Federal regulations for policies and procedures of the Boston Redevelopment Authority and all applicable provisions of the South Cove Urban Renewal Plan:

PARCEL ADDRESS PROPOSED REHABILITATION

R-3D-1 20 Pine Street Residential

R-3D-2 237-239 Harrison Avenue Residential/Commercial

DEVELOPER PREFERENCE

- Displaced families and/or relocatees from project area;
- 2. Local businessmen and community residents who intend to be owner-occupants
- 3. Other interested developers.

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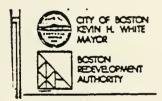
4. Quality of design and soundness of program that will complete the highest quality of rehabilitation in the shortest time.

INFORMATION AVAILABLE

A Developer's Kit, including a description of the buildings and complete information governing the requirements to be met by developers in the preparation of proposals is available by delivery of a check for \$10.00, payable to the Boston Redevelopment Authority, to Wm. Arthur Reilly, Project Coordinator, Boston Redevelopment Authority, Boston City Hall, One City Hall Square, Boston, Massachusetts 02201.

Letters of intent and Developer's Statement (HUD Form 6004) must be

Letters of intent and Developer's Statement (HUD Form 6004) must be submitted on or before Friday, April 27, 1979.



Robert L. Farrell
Joseph J. Walsh
James G. Colbert
James K. Flaherty
James E. Cofield, Jr.
Robert J. Ryan
Kane Simonian

Chairman
Vice Chairman
Treasurer
Asst. Treasurer
Member
Director
Executive Director



INTER-OFFICE COMMUNICATION

TO Arthur Reilly

FROM John Wall, William Norton

DATE October 7, 1982

SUBJECT 20 Pine Street

The rear wall of this building was inspected today.

We suggest that approximately 230 sq. ft. of this 12" wall be removed and reconstructed, from the grade line to the header course at the first floor windows.

The wall ought to be made safe from possible collapse.

cc: McGilvray



J. d.

BASIC GENERAL CONDITIONS AND SPECIFICATIONS

FOR
REHABILITATION OF RESIDENTIAL PROPERTY
IN AN
URBAN RENEWAL AREA



BASIC GENERAL CONDITIONS AND SPECIFICATIONS

FOR
REHABILITATION OF RESIDENTIAL PROPERTY
IN AN
URBAN RENEWAL AREA

PREPARED BY
BOSTON REDEVELOPMENT AUTHORITY

Revised January, 1972



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SECTION A

MEASUREMENTS

1. THE CONTRACTOR shall be responsible for checking and verifying all measurements. When detailed or structural drawings are required, the CONTRACTOR shall be responsible for furnishing them with promptness so as to cause no delay in his own work or in that of any other contractor.

SECTION B

DEMOLITION WORK

- 1. DEMOLITION: Work shall be executed in a safe, orderly manner; demolished in small sections, and bracing and shores shall be used where necessary to avoid collapse.
- 2. PROTECTION: The CONTRACTOR shall protect existing materials and apparatus from damage and shall repair damage caused by him at no cost to the OWNER.
- REMOVAL OF MATERIALS: Unless OWNER desires to retain removed materials, or equipment, they shall become the property of the CONTRACTOR and shall be promptly removed from the premises.
- 4. CLEANING: At the completion of demolition work, floors shall be left "broom clean," ready for other trades to start work.

SECTION C

MASONRY

- 1. SCOPE OF WORK: Work shall include all brick, stone, block, tile work, and related items necessary to complete the masonry work indicated or specified including the setting of loose lintels, bearing plates, anchors, pipes and metal work furnished by others. Structural defects in existing masonry shall be corrected as herein specified.
- 2. MATERIALS: All materials shall comply with standard specifications of the American Society for Testing Materials, current standards.
 - A. Cement shall be Portland cement, Type I. C-150. Nonstaining cement shall be used when specified.
 - B. Lime shall be hydrated lime.
 - C. Sand shall be clean hard sand, free of clay, loam, or vegetable matter.
 - D. Water shall be potable.
 - E. Brick where exposed shall be faced brick and shall match in texture and color adjacent brickwork, unless otherwise specified. Where not exposed to view or where to be painted or covered, common brick may be used.
 - F. Concrete Block shall be hollow masonry units of gravel, cinders, or other approved aggregates. Where load bearing or exposed to weather or soil, concrete blocks shall have compressive strength as specified in Boston Building Code.
 - G. Stone shall be hard and durable and free of defects that would impair its strength, durability, or appearance. Color and texture shall be as specified and samples shall be approved by Owner. Where used adjacent to existing work, color, and texture shall match as closely as possible.
 - H. Cast Stone shall have a compressive strength of 5,000 pounds per square inch and shall be reinforced as required.
 - 1. Flue Linings shall be made of fire clay, and shall be hard, burned, free burned, free from undue warpage, cracks, or other defects.

J. Mortar:

- (1.) Water shall be clear and free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances.
- (2.) Portland cement shall comply with ASTM C-150 or F.S. SS-C-192. Masonry cement shall comply with ASTM C-91 or F.S. SS-C181. Nonstaining cement shall be a standard product of make and brand.
- (3.) Hydrated lime for structural purposes shall comply with ASTM C-141 or F.S. SS-L-351. Quicklime shall comply with ASTM C-5 and shall be thoroughly slaked before using. Pressure hydrated lime shall be type "S" conforming to ASTM C-207.
- (4.) Aggregate for mortar shall comply with ASTM C-144 and shall be natural sand, sand made from stone, gravel or air-cooled blast furnace slag. Course aggregate shall be composed of hard crystalline rock, free from shale or decomposed pieces. Grits for cement finishes shall be clean and sized 1/8" to 3/8".

(5.) Types:

(a.) Mortar: Job-mixed mortar shall consist of the following minimum proportions by volume:

	Class	Portland Cement	Hydrated Lime	Sand
	А	1	1	6
	В	1	2	8
Cement	Mortar	1	-	3

- (b.) Cement mortar ready-mix, standard grade, or American Society for testing materials current standard for hydrated lime mix.
- (c.) Mortar for repointing old brickwork or stonework shall be Class "A" and shall be mixed to match existing mortar in color.
- (d.) Lime Mortar: One part of well aged lime putty, not more than three parts sand.
- (e.) Masonry cement Mortar: Where use of prepared mortar cement is permitted, it shall be of an approved manufacturer and shall be mixed according to manufacturers directions but not less than one part mortar cement to three parts sand.
- (f.) Pointing mortar (for face stone work): One part nonstaining waterproof cement and two parts white sand, to which shall be added sufficient hydrated lime to make as stiff a mixture as can be worked.
- (g.) Cement grout for stone facing and/or face brick work shall be one part cement and one part fine sand, mixed as thick as it will pour. Nonstaining cement shall be used for nonstaining grout.
- (h.) Parget mortar shall be the same as the mortar used on the masonry facing to be pargetted.
- (6.) Common brick shall be clay or shale units, grade SW for exterior facing and grade MW elsewhere and shall comply with ASTM C-62 or F.S. SS-B-656.
- (7.) Face brick shall be clay or shale units, grade SW and shall comply with ASTM C-216. Brick shall be selected by the Boston Redevelopment Authority. For purpose of estimate, an allowance per thousand, shall be included for purchase and delivery, unloaded and piled at site. Contract sum will be properly adjusted on basis of actual cost. This allowance does not include sales taxes. Any applicable tax, labor, or materials must be added and included by the contractor in his proposal.
- (8.) Load-bearing structural hollow clay tile shall comply with ASTM C-34 or F.S. SS-T-341. Non-load bearing tile shall comply with ASTM C-56 or F.S. SS-T-351. Interior clay tile shall be Grade LB. Structural clay tile subject to weather or soil shall be Grade LBX.
- (9.) Ceramic glazed structural facing tile or facing brick shall comply with ASTM C-126 and shall conform to Standard Grading Rules of Facing Tile Institute, Washington, D.C. Provide all special shapes required such as corners, base, sills, lintels, etc. All external facing tile corners shall be bullnosed.

- (10.) Concrete masonry units shall comply with the following:
 - (a.) Hollow load-bearing units. ASTM C-190 or F.S. SS-C-621, Type I.
 - (b.) Hollow non-load bearing units. ASTM C-129 or F.S. SS-C-621, Type II.
 - (c.) Solid load-bearing units, ASTM C-145.
 - (d.) Concrete masonry units shall be laid up with Dur-O-Wall reinforcing, or approved equal, set in every second course (16" max.). Reinforcing to consist of two 3/16" siderods and #9 wire trussed crossrod.
- (11.) Cast stone shall comply with F.S. SS-S.721.
- (12.) Natural stone shall be sound, free of friable inclusions, and have sufficient strength and durability for use proposed.

LAYING:

- A. All masonry shall be laid up in mortar as specified. Face brick, where not otherwise indicated, shall be laid in running bond with bonding header courses every sixth course, with headers extending at least 4" into backing.
- B. All bed and end joints of solid units shall be filled solid with mortar. Hollow masonry shall be laid with mortar applied to bed and head joints of face shells except that first course shall be laid in a fullmortar bed. Brick joints shall be 3/8"; block and tile joints 1/2". All joints of exposed masonry, unless otherwise shown or specified, shall be concave tooled joints. Joints of interior rough masonry to be struck flush.
- C. Exposed masonry shall be laid out and adjusted to maintain the bond plumb and joints uniform. Vertical joints of brick shall not vary more than 1/2" either way from a plumb line. No course shall terminate at a corner or at an opening with a piece less than one-half brick size.
- D. Existing loose or defective material area to be rebuilt must be removed until second brick work is encountered.
- E. Masonry veneers shall be anchored to back-up or framing with non-corrosive wall ties set 12" on center horizontally and 12" on center vertically as required by applicable codes. Veneers anchored to wood frame construction shall be secured to studs.
- F. All stone or cast stone shall be anchored as required with non-corrosive anchors of adequate strength to secure work properly. Masonry veneer of thin flat stones shall be anchored every 12" in all horizontal joints with non-corrosive anchors.
- G. Flaggstone on concrete slabs shall be laid over 3/4" setting bed.
- H. Flaggstone on top soil shall be laid over 4" of well-tamped top soil.
- I. Under all bearing plates and lintels for openings over 4 ft. wide, build solid brick bearing in accordance with recognized engineering practice.
- J. The Contractor shall be entirely responsible for all damage to masonry by cold or other causes and any masonry so damaged shall be removed and replaced by him at his own expense. No masonry shall be performed when the temperature is below 40 degrees F.

- 4. REPOINTING: Existing masonry requiring repairs or repointing shall be restored or rebuilt by one or more of the following methods, as determined on plans or work write ups.
 - A. Repoint deteriorated mortar joints by removing defective mortar to minimum depth of 3/4". Brush clean and wet all open joints before applying new mortar, consisting of one part Portland cement and two and one-half parts clean, sharp sand. Cut mortar flush, allow to set thumb-nail hard, and tool to form a compresses, concave joint.
 - B. Mortar shall be cement mortar of color to match color of existing joints as closely as possible.
 - C. Upon completion, area that has been repointed shall be cleaned to remove excess mortar.

5. CLEANING:

- A. Acid or caustic solutions, diluted as recommended by manufacturer, shall be used to remove mortar, paint, metal or oil stains. Wash area thoroughly with clear water immediately after cleaning.
- B. Hand-scrub surfaces with white soap powder dissolved in soft water, using fiber scrub brushes. Wash surfaces thoroughly with clear water after scrubbing.
- C. Sandblasting or steamcleaning of existing masonry work shall be done by experienced personnel who shall exercise all necessary precautions to prevent damages to adjacent property.
- 6. DOORS and WINDOWS: Install angle iron lintel in course with 3" bearing on either side. Bricks to be toothed on sides and row lock or soldier course over lintel. In all cases brick to match existing as near as possible. All window and door opening to be blocked shall match existing walls as close as possible and to be flush on the inside (using brick or cement block).

SECTION D

CONCRETE

- MATERIALS: All materials shall comply with standard specifications and tests of the American Society for Testing Materials current standards.
 - A. Cement shall be Portland cement, Type I. C-150.
 - B. Water shall be potable.
 - C. Aggregate: Maximum size for coarse aggregate shall be 3/4" for slabs and 1" for walls and footings. Coarse aggregate shall consist of clean, hard gravel or crushed stone free from clay, loam, or vegetable matter. Fine aggregate shall consist of clean hard sand or crushed stone free from clay, loam, or vegetable matter.

D. Metal Reinforcement:

- (1.) Reinforcing steel shall be of rail steel, standard grade, deformed bars.
- (2.) Welded steel wire mesh reinforcement shall be 6" x 6"-#10.

. MIXTURES:

- A. The concrete mix shall be one part Portland cement, two parts clean washed sand, and four parts clean gravel by volume. The water shall not exceed seven gallons per bag of cement. Concrete exposed to the weather shall contain not less than six bags of cement per cubic yard of concrete and the water-cement ratio shall not exceed six gallons per bag of cement.
- B. New reinforced concrete slabs (if applicable), at first floor or basement front and rear entrance to be installed by Contractor, where applicable prepare basement floor area and install minimum 4" thick with necessary reinforcing.
- PLACING of CONCRETE: Concrete shall be placed in solidly built forms and handled with care so as to produce smooth surfaces as required.
- 4. COLD WEATHER REQUIREMENTS: During cold weather a minimum concrete temperature of 50 degrees F shall be maintained during the curing period.
- 5. BONDING NEW CONCRETE TO OLD: Before depositing new concrete against existing concrete or when patching, the surfaces of the existing concrete shall be roughened, cleaned of foreign matter wetted and slushed with a coating of neat cement grout, against which the new concrete shall be placed.

FINISHING CONCRETE:

- A. Slab surfaces to remain exposed or to receive resilient tile shall be screeded, floated, and steel trowelled to a smooth surface.
- B. Slab surfaces in basement areas or exterior slabs shall be screeded and finished with wood float, surfaces shall pitch to drain where necessary.

BOILER ROOM ENCLOSURE:

- A. Concrete block shall be 8" x 8" x 16" hollow masonry units of gravel, cinders or other approved aggregates.
- B. Concrete block shall be layed level and true to line, in a full bed or mortar properly bonded throughout.
- C. All joints to be of a uniform thickness and not to exceed 3/4".

3.

SECTION E

DAMPROOFING

- 1. MATERIALS: All materials shall comply with standard specifications and tests of the American Society for Testing Materials current standard.
 - A. Quick-Set Hydraulic Cement shall be standard commercial brand for stopping flow of water through holes and cracks in masonry and concrete.
 - B. Cement-Base Waterproofing shall be standard commercial brand for filling and sealing pores and voids in masonry surfaces against moisture penetration.
 - C. Asphalt Compounds shall be standard commercial brands for rendering masonry surfaces damp resistant.
 - D. Silicone Coatings shall be standard commercial brand for prevention of penetration of moisture into masonry or stucco surfaces.

2. APPLICATION AND WORKMANSHIP:

- A. All surfaces shall be cleaned by approved methods prior to application.
- B. All materials shall be applied in accordance with manufacturer's directions.
- C. At the conclusion of the work, the CONTRACTOR shall remove all debris and work equipment and leave the premises in their original state of order.

3. BASEMENT REPAIRS AND DAMPROOFING:

- A. Existing basements and crawl spaces shall be restored as required to comply with applicable codes. Crawl spaces shall be adequately ventilated and drained. Structural defects and excessive moisture or dampness in basements shall be corrected as herein specified. All waterproofing or damp-proofing materials shall be applied in strict accordance to manufacturers instructions.
- B. Moisture or dampness in basements resulting in excessive condensation leakage of water through cracks or other openings or seepage of moisture through walls and floors shall be repaired by one or more of the following methods, as determined by the Construction Analyst:
 - (1.) Divert surface drainage from building by grading and provide adequate gutters, conductors, etc., for roof water, as specified.
 - (2.) Where extreme moisture conditions or hydrostatic pressure exists at foundation walls excavate exterior side of wall area and apply asphalt or coal-tar saturated fabric materials used in conjunction with coatings (hot or cold) of mastic or emulsions. Exterior waterproofings shall equal or exceed the following:
 - (a.) Asphalt emulsions shall comply with ASTM D-449. Type A, or F.S. SS-A-66.
 - (b.) Coal-tar pitch shall comply with ASTM D-450, or F.S. R-P-381.
 - (c.) Asphalt saturated felt for waterproofing shall comply with ASTM D-226 or F.S. HH-F-191.
 - (d.) Coal-tar pitch shall comply with ASTM D-227, or F.S. HH-F-201.
 - (e.) Volcaly bentonite as manufactured by American Colloid Co. or equal, as approved.

- (f.) Existing rough masonry walls requiring exterior waterproofing shall be given a leveling coat of cement mortar of 3/8" minimum thickness mixed one part Portland Cement to two and one-half parts clean, sharp sand. Before applying cement mortar all wall surface shall be cleaned and wetted, then scrubbed with a coat of Portland Cement and water. While still wet apply cement mortar.
- (g.) Where impractical to excavate exterior side of walls apply interior dampproofing or waterproofing coatings.
- (h.) Where seepage occurs at intersection of floor and wall cut a joint 2" in depth and fill with joint sealer compound hot tar, a mixture of tar and sand or equal, as approved by the Construction Analyst.
- (i.) Concrete floor severely cracked due to hydrostatic pressure shall be repaired by placing a new 2" thick concrete topping over the existing floor. Prior to placing topping remove existing floor around inside perimeter of exterior foundation walls and install perforated, porous, or open joint drain tile connected to existing drainage system. Drain tile shall be back-filled with fine screened gravel or crushed stone.
- (j.) Crawl spaces of dirt floor construction shall be covered with a vapor barrier, over the entire area.

SECTION F

BOOFING AND SHEET METAL

- MATERIALS: Roofing materials shall equal or exceed the following standards and shall be applied
 in strict accordance with the manufacturer's instructions. Roofing contractor to submit samples and
 application method for approval before commencing work. Contractor to submit color samples for
 selection by owner. All materials shall also comply with standard specs and tests of the American
 Society for Testing Materials current standard.
 - A. ASPHALT SHINGLES: Roofing shingles shall be asphalt impregnated felt coated both sides, and mineral granules applied over the side exposed to the weather. Shingles shall be three tab, self-sealing, minimum weight of 235 lbs/square, U.L. Type Class "C" laid with maximum exposure of 5".
 - B. BUILT-UP ROOF: Where built-up roofs are required roofing contractor shall inspect all surfaces before commencing work. Roofing over acceptable wood decks or insulation shall equal or exceed the following:
 - (1.) Layer Rosin-sized sheathing paper. 3 Plies (1 ply No. 30 and 2 plies No. 15) asphalt-saturated felt fully imbedded in bitumens applied approximately 20 lbs/square.
 - C. ASBESTOS SHINGLES: Shall be of asbestos cement not less than 1/8" thick.
 - D. SLATE OR CLAY TILE SHINGLES: Where exposed shall match as closely as possible in texture and color.

E. ROLLED ROOFING:

- (1.) Rolled roofing shall be mineral surfaced (exposed side), asphalt impregnated roofing felt, approximate weight 90 lbs. square, U.L. Type Class "C". Underlayment, nailing, adhesives, and application shall be according to manufacturer's recommendations.
- (2.) For wood decks with slopes of 2" to 4" per horizontal foot, roofing shall be applied over two layers of No. 15 asphalt-saturated felt lapped 19" and exposed 17". On slopes greater than 4" per horizontal foot apply roofing over a single underlayment of No. 15 asphalt-saturated felt, with all edges lapped not less than 2".
- F. METAL ROOFING AND CORNICES shall be repaired with metal of type and gauge to match existing. Where exposed, repaired work shall be painted or otherwise treated to match old.
- G. NAILS: Nails shall be 12 ga., 3/8" heads, galvanized roofing nails 2" long for use over existing materials and 1-1/2" long for new construction.

H. INSTALLATION:

- (1.) As determined by the plans and specifications, existing roofs shall be restored by one of the following methods:
 - (a.) Roofs in good condition shall be restored by replacing missing or damaged shingles or roofing, matching existing materials.
 - (b.) Remove all existing roofing and felts of roof in poor condition. Remove and replace defective or rotted sheathing. Renail loose boards. Where existing sheathing has been applied with open spacing insert wood strips to make a smooth solid deck.

Remove all loose nails before applying any roofing materials.

(c.) New roofing shall be laid over existing asphalt rolled roofings only if in reasonably good condition. Manufacturer's recommendations for roofing shall be followed.

FLASHING and GRAVEL STOPS:

A. SCOPE OF WORK: Apply watertight flashings at all intersections of roof with vertical surfaces, caves, rake edges, chimneys, roof drains, etc. Extend flashings up vertical surfaces at least 6" and horizontally over roof surfaces 4" minimum. Metal flashings shall be of corrosion resistant metals such as copper, galvanized metal, lead or zinc, installed in complete accordance with National Association of Sheet Metal Contractors Specifications.

B. FLASHINGS:

- (1.) Copper Flashing shall weigh 16 ounces per square foot unless otherwise specified.

 Copper shall be lead coated both sides when so specified.
- (2.) Aluminum Flashing shall be .020" sheet aluminum unless otherwise specified.
- (3.) Fabric Flashing: Flashing for built-up roofs shall be: Asphalt Primer, 2 Plies No. 15 Asphalt-saturated felt, 1 Ply 90# mineral surface roofing felt. All plies set in steep asphalt or flashing cement. Top nail every 10" o.c. minimum.
- (4.) Plastic Flashing shall be a non-reinforced homogeneous waterproofed impermeable material composed of elastomeric substances which have been reduced to a thermoplastic state and extruded into a continuous sheet 5 X gauge specified.
- (5.) Galvanized Metal shall be 16 or 20 gauge as specified.
 - (a.) Repairs to existing flashings shall be with metal of type and gauge to match existing.
 - (b.) Dissimilar metals shall be protected from contact with each other by a heavy brush coat of zinc chromate and heavy brush coat of bituminous paint.
 - (c.) Aluminum shall be protected at contact with masonry, concrete and plaster by a heavy brush coat of alkaliresistant bituminous paint or clear Methacrylate lacquer.

C. GRAVEL STOPS:

- (1.) Copper: 16 Ounces cold rolled copper, lead coated when specified.
- (2.) Aluminum: .032" or extruded, or stock design.
- (3.) Zinc Alloy: .027 Cornice temper Zinc Alloy.

GUTTERS AND LEADERS:

- A. Galvanized Steel shall be minimum .026 gauge low carbon galvanized steel including all accessories as hangers, hooks, and strainers. Leader 3" or 4" round or rectangular, corrugated including all accessories or as specified.
- B. Zinc Alloy shall be minimum .027 gauge with hanger spacing up to 18" on center. Leader 3" or 4" round or rectangular corrugated including all accessories or as specified.
- C. Aluminum shall be .025 gauge, leaders, .025 gauge 3" or 4" round or rectangular corrugated including all accessories or as specified.

- D. Copper shall be 16 ounces cold rolled copper, lead coated when so specified. Leaders 3" or 4" round or rectangular corrugated including all accessories or as specified.
- E. Wood Gutters: See Carpentry Section.
- F. Skylights shall be of metal and wire glass or metal and plastic constructed to keep water out and flashing water tight to adjoining work. Skylights shall be operable or with built in exhaust fan when so specified.
- G. Shower Pan: See Plumbing Section.
- H. The Contractor shall, when installing downspouts, clean the existing drains and tie in the new downspouts to the drains.
- 4. LAYING and WORKMANSHIP: The intent of this specification is to provide a completely watertight roof.
 - A. New Installation: Built-up roofing shall be specified as to 10, 15, or 20 year bonded roof.
 - B. Where recoating of existing roof is called for in the Work Write Up, all flashings shall be checked out and made watertight; all bubbles in existing roof shall be cut out and secured and at least one coat of tar or asphalt and one ply of saturated felt shall be applied.
 - C. All shingled roofs shall be laid in strict accordance with the directions and specifications of the manufacturer of the shingles. Where repairs to existing shingle roofs are called for, all flashings shall be checked out and made watertight, defective shingles shall be removed and replaced. All work shall be done in accordance with best practices.

5. GUARANTEES:

- A. Where the Work Write Up specifically calls for a surety bond guarantee on the built up roofing, the Contractor shall issue such guarantee for period as specified.
- B. The CONTRACTOR shall furnish the OWNER with a written guarantee to the effect that the CONTRACTOR will repair at his own expense any leaks or other defects that may appear in his work and make good any damage caused by these leaks or defects.

SECTION G

CARPENTRY AND MILLWORK

MATERIAL and SCOPE OF WORK: Contractor to remove all non bearing partitions, doors, windows and trim, stairs, beams, posts and flooring as shown on plans. Contractor to install, floor and ceiling joists, sub and finish hardwood flooring, thresholds, doors, windows, hardware, window and door locks, repair or replacement of stairs, baseboards, exterior and interior trim, kitchen cabinets, drop ceilings and all interior framing, paneling, closets, coat poles, furring, shelving, roof joists and sheathing as shown or specified.

Contractor to furnish all labor, material and equipment necessary, shown, described or implied on plans for carpentry, drywall, class and glazing for windows and skylights.

A. Moisture Content:

- (1.) All lumber or Millwork shall be kiln dried or otherwise seasoned to a moisture content not to exceed the following:
 - (a.) Framing Lumber: 19 Percent at time of installation.
 - (b.) Boards wider that 8": 15 Percent at time of installation.
 - (c.) Exterior trim and Millwork: 14 Percent.
 - (d.) Interior trim, Woodwork and Softwood flooring: 10 Percent.
 - (e.) Hardwood flooring: 9 Percent.

B. Protective Treatment:

- (1.) Framing lumber below first floor level, up to and including sill plate, joist, header joist, girders, columns, sole plates, sub floor, wood sheathing, exterior stairs and railings, exterior decks, plates or sleepers in contact with concrete, shall be pressure impregnated to prevent attack by fungi or insects in strict accordance to recommended practices of the American Wood Preserver's Association and the latest edition of Federal Specifications TT-W-571.
- (2.) Protective treatment shall be as manufactured and application as specified by manufacturer.

C. Materials to be Furnished and Installed:

- (1.) Furnish and install the following items required to complete the Carpentry and Millwork.
 - (a.) Continuous wood nailers for attachment of flashing and other items of roof areas as may be required for the attachment of work of other trades.
 - (b.) Wood blocking attached to or imbedded in masonry, concrete and finished surfaces for attachment of other materials to these surfaces as required by other trades.
 - (c.) All rough hardware such as nails, screws, bolts, clips and other related items.
 - (d.) Cabinet and casework hardware.
 - (e.) Wood handrails.
 - (f.) Wood baluster, railings and stairs.

- (h.) Cabinets and casework where shown on the drawings, consisting of natural birch veneer plywood edge banded in solid birch for all wood exposed portions of cabinets and concealed shelves, solid birch front, fir plywood tops and back splashes with laminated plastic, vinyl or formica tops and edge bandings and clear pine bases.
- (i.) Wood framing, clear pine shelving and clothes poles in closets and where indicated on the drawings.
- (j.) All other items of carpentry or millwork and related work inferred or intended to make the work of this section complete.

D. Temporary Braces:

(1.) The Contractor shall provide and maintain all temporary bracing required for window and door frames, sills and other work required and which is not specified as being provided under other sections of the specifications.

E. Workmanship and Quality Standards:

- (1.) Millwork and trim shall conform to design and detail as specified. Where practicable, work shall be finished and assembled at the mill.
- (2.) All millwork and trim shall be finished smooth and free from all machine and tool marks that will show through the finish. Nails used to fasten painted work will be set to receive putty.
- (3.) All joints will be tight and formed to conceal shrinkage. Miters four inches or more from heel to point shall be glued.
- (4.) Finish shall be made in as long lengths as possible and jointed where only solid fastenings can be made.
- (5.) No interior millwork shall be delivered until all wet work has been out of the building for at least 10 days. Heat shall be required, in cold weather, during these 10 days.
- (6.) Running finish shall have a minimum of splices and joints and where such splices and joints occur, they shall be fastened securely, and all exposed surfaces shall be smooth continuous planes.
- (7.) Reinforce members that are cut for passage of pipes, conduits and ducts.
- (8.) Install grounds, blocking, nailers and supports for fixtures. Use 2" x 4" solid blocking under edges and ends of plywood subflooring and decking.

F. Framing:

- (1.) Nail sole plates to concrete with masonry nails or anchor 48" maximum on centers with 3/8" round bolts. Set sole plates on 15# builder's felt paper.
- (2.) Use double studs at sides of openings, triple at corners. Space studs not more than 16" on centers.
- (3.) Use two (2" \times 6") headers over openings up to 5' of clear span. Use two (2" \times 8") headers from 5' to 7' of clear span. Use 2" \times 10" headers from 7' to 9' of clear span. Use 2" \times 12" headers from 9' to 11' of clear span.
- (4.) Brace exterior corners with 1" x 4" let into studs. Bridge joists and rafters with 1" x 3" diagonal bridging. Drive bottom nails after subflooring or decking has been laid. Install one row of bridging for each 8' or fraction of span.

2. Framing Lumber:

- A. Grades of lumber shall conform to grading rules of the manufacturer's association under whose rules the lumber is produced.
- B. All framing lumber shall be air dried and well seasoned.
- C. Beams and girders shall be "construction" grade Douglas fir, Eastern hemlock, or spruce unless otherwise noted.
- D. Floor joists, headers, ceiling joists, and rafters shall be "standard" grade Douglas fir, Eastern hemlock, or spruce unless otherwise noted.
- E. Studding, blocking, bridging, plates, and fire stops, shall be "utility" grade and better unless otherwise noted.
- F. Flooring joists to be set on sill and/or beams bearing at least 3". Spacing of joists shall not exceed 16" on center. Allowable spans for floor joists shall not exceed FHA minimum property standards or Boston Building Code standards.
- G. Boards for wall and roof sheathing and for subflooring and other uses where appearance is not a factor shall be 1" \times 8" "utility grade and better unless otherwise noted. Nail boards with 8d common nails or 6d threaded nails, providing two nails in 4" and 6" boards and threee nails in 8" boards.

3. Sheathing:

A. Plywood for wall and roof sheathing shall be not less than 1/2" Douglas fir plywood of exterior or structural interior type. Installation shall be with outer plies at right angles to the studs or rafters.

Set horizontal and sloping members with crown side up. Set vertical members plumb. Cut framing square on bearing and fit closely.

4. Subflooring:

- A. Plywood for subflooring shall be not less than 5/8" Douglas fir plywood of exterior or structural interior type. Installation shall be with outer plies at right angles to the joist or subflooring.
- B. Nail plywood subfloor to joist at each bearing with 8d commond or 6d threaded nails spaced 6" on center along all edges and 10" on center along intermediate members.
- C. Sub-flooring shall be: 3/4" tongue and grooved spruce (maximum 8" face) or 3/4" plywood construction grade.

5. Underlayment:

A. Underlayment for resilient tile floors shall be 1/4" structural grade, interior or exterior type Douglas fir or 1/4" untempered hard board placed with smooth side up or as specified. Nail underlayment with cement coated rosin coated or ring grooved nails placed on 4" on center on all edges and over the face of each piece.

6. Stairs and Handrails:

A. Stair carriages shall be cut from minimum $2" \times 10"$ framing members, three per stair up to three rise over three rise no more than 18" on center. Treads for basement stairs shall be no less than 3/4" hard pine or fir. Treads for other interior stairways shall be 3/4" oak or 3/4" hard pine.

- B. Exterior wood steps shall be Douglas fir "C" grade vertical grain 3/4" thick. Risers shall be 3/4" thick. Stair carriages shall be cut from minimum 2" x 10"'s, three per stair, and shall be supported on concrete footings.
- C. Firestopping shall be of masonry or of wood not less than 1-1/2" thick.
- D. Install wood handrails on at least one side of each flight of stairs exceeding two risers and around open sides of all stairs. All new handrails shall be of pine, solid birch or oak installed on metal wall brackets anchored securely to wall approximately 4' on centers.

7. Insulation and Siding:

- A. Building paper and felt shall weigh approximately fifteen pounds per 100 square feet, and shall be installed in accordance with manufacturer's recommendations under all exterior finish.
- B. Insulation shall be mineral wool batts, fiberglass batts, or aluminum foil and shall be installed in accordance with manufacturer's recommendations in thicknesses as noted in Work Write Up.
- C. Wood shingles shall be edge grain red cedar 18" or 24" long and random width. Shingles shall be nailed to sheathing with corrosion resistant nails of sufficient length to penetrate the sheathing. Nail approximately 1" above butt line of following course and use two nails in each shingle up to 8" wide and three nails in wider shingles, threades nails shall be used if sheathing is plywood. Maximum exposure 7-1/2" to weather for 18", 10" to weather for 24".
- D. Wood bevel siding shall be 1/2" x 6" applied 5" maximum to the weather unless otherwise noted. Wood shall be vertical grain red cedar, Douglas Fir, or hemlock in "C" grade or better. Siding shall be nailed to each stud with corrosion resistant nails of a length that will provide at least 1" of penetration into the stud. Butt joints in siding shall occur over studs and joints in adjacent pieces shall be staggered. Fit siding tightly and neatly against all trim and molds. Siding when no corner boards are used, shall be mitered neatly at all corners.
- E. Wood vertical siding shall be 3/4" minimum thickness in 4", 6", 8", or 10" widths as specified. Wood shall be redwood or red cedar, in A-Grade, T & G. Nail siding to blocking between studs spaced not more than 24" on center with corrosion resistant nails. Nails shall be long enough to penetrate at least 1" into blocking. Siding shall be nailed twice at every bearing and nails shall be well set.
- F. Cement asbestos siding shall conform to applicable Federal Specifications and shall be minimum 1/8" thick X 8-3/4" or 12" width, in 24" or 48" lengths. Top lap shall be minimum of 1". Installation shall be in accordance with manufacturer's recommendations. Color and texture shall be as selected by owner.
- G. Aluminum siding shall conform to applicable Federal Specifications in alloy and thickness. All siding shall be formed as to provide interlocking courses and all required accessories shall be furnished with the siding. Insulated siding, when specified, shall be composed of 8" aluminum lap siding laminated to rigid insulating core board with structural adhesives. All aluminum siding and accessories shall be installed in accordance with manufacturer's instructions. Aluminum nails shall be used throughout.

8. Exterior Cornices and Trim:

- A. Exterior trim, corner boards, and cornices shall be of a species suitable for its intended use, kiln dried #1 dimension, free from tool marks and other objectionable defects. Cornices to be repaired shall have all rotted or deteriorated parts removed and replaced with new parts matching original work. New cornices, moldings, and exterior shall be of stock material unless otherwise indicated on drawings or Work Write Up.
- B. Wood gutters shall be #1 Douglas Fir 3" x 4" or 4" x 5" or as specified to allow proper drainage of roof area, nailed to each rafter with galvanized nails.

9. Windows:

- A. Windows shall be of Kiln dried Ponderosa pine 1-3/8" minimum thickness. Frames, sill, sash, trim, and hardware shall match existing work in design and dimension unless otherwise specified.
- B. Set up window units to include sash, frame, sash or spring balances, jamb liners, and exterior casings completely assembled. Installation of window unit (after opening is readied with proper studding and shimming) shall match existing areas, both exterior and interior. Where new window does not fit existing opening, enlarging or filling of spaces shall match existing finishes. Slotted and tenon corner joints shall be pinned, and primed before installation.
- C. Combination storm window units shall be of clear pine 1-1/8" thick or of aluminum with interchangeable glazed and screen panels as specified in Work Write Up.
- D. Wood blinds and shutters shall be of aluminum or clear pine 1-1/8" thick of design as shown on drawings. Stock shutters including all necessary hardware shall be used unless otherwise specified.
- E. Screens shall be aluminum framed half screens with reinforced corners and aluminum wire of colored fiberglass screen cloth as specified. All operating sash to be weather stripped as specified.

10. Doors:

- A. All doors shall be as specified on plans or work write ups. Door frames shall be of clear pine 1-3/8" or 1-3/4" thick, rabbetted for doors and screens. Frames, sill, trim, and hardware shall match existing work in design and dimension unless otherwise specified. When "prehung" stock door units are specified, the term shall include doors, 1-3/4" minimum thickness for exterior openings and 1-3/8" thick (minimum) for interior openings all necessary hardware, and preservative treatment for exterior units. Glazing, screen and storm doors shall be as specified in Work Write Up.
- B. Transoms and sidelights shall be of clear pine 1-3/8" thick glazed with single strength B glass and shall match existing work in design and dimension unless otherwise specified.
- C. Combination doors shall be of clear pine 1-1/8" thick or of aluminum with interchangeable glazed and screen panels as specified in Work Write Up.
- D. Doors shall be 1-3/4" minimum thickness for exterior openings and 1-3/8" minimum thickness for interior or as specified in Work Write Up. Woods shall be Philippine Mahogany, birch, red oak, or No. 1 Ponderosa pine as specified in Work Write Up. Doors shall be of stock sizes and design unless Work Write Up calles for them to match existing doors or openings. Doors where required by the Work Write Up shall be taken to mean installation of jamb, casing (both sides), butt hinges, lock set, and door; and any required repairs to the adjoining surfaces. All woodwork and repaired adjoining surfaces to be finished as per Work Write Up. Where one hour fire doors are called for, solid wood flush doors, 1-3/4" thick equipped with self-closing hardware shall be used.
- E. Where specified, remove and replace exterior basement doors and frames. Doors are to be manufactured same as front exterior solid core doors with self closing devices. Replace frames with wood blocking of the proper size and anchored to foundations in a suitable manner. All exterior lumber in contact with masonry or concrete is to receive a pressure preservation treatment as here in after specified. Provide proper hardware for hingeing and locking these doors.
- F. All interior and exterior doors shall be promptly and securely fitted to openings. The top and bottom edges of all wood doors required to be undercut shall receive painter's finish after they have been fitted to their openings.

11. Porches:

- A. Porch and railing posts shall be of Douglas fir of adequate size to support loads and shall match existing work. Where posts are to be exposed, "construction" grade Douglas fir shall be used.
- B. Porch railings shall be of Douglas fir in stock moldings or of design as shown on drawings.
- C. Porch flooring shall be Douglas fir "C" grade vertical grain 1 x 4 S.E. Fir unless otherwise specified.
- D. Exterior wood steps shall be Douglas Fir "C" grade vertical grain 3/4" thick. Risers shall be 3/4" thick. Stair carriages shall be cut from 2 x 10's three per stair, and shall be supported on concrete footings.

12. Drop Ceilings:

- A. Install 2 x 4's around perimeter of room and 2 x 4's 16" on center for cross pieces. Hangers on cross pieces at 4' on center. 1 x 3 strapping 16" on center for sheetrock and rock lath. 12" on center for wire lath and ceiling tiles. Type of ceiling to be described in Work Write Up.
- B. Ceiling tiles shall be wood fiber or mineral fiber in size and thickness as shown on drawings or noted in Work Write Up. Pattern or texture shall be as selected by Owner. Method of installation shall be by cementing, nailing, stapling, or mechanical suspension system in strict accordance with manufacturer's recommendations. Tiles shall be treated with flame resistant paint when of combustible material.

13. Paneling:

A. Wall paneling shall be kiln dried lumber 3/4" thick or grade, species, and pattern as noted in Work Write Up. Wood framing shall be blocked with 2 x 4's not more than 24" on center or by 1" x 2" strips run horizontally at a spacing not more than 24" on center and secured to studs or masonry wall. Pre-finished 1/4" plywood and hardboard panelings shall be of grain and finish as selected by owner. Installation shall be in strict accordance with manufacturer's instructions. All necessary beads and moldings shall be included.

14. Wood Floors:

A. Wood flooring shall be a grade and species of wood as shown on drawings or noted in Work Write Up. Wood shall be 25/32" minimum thickness, 2-1/4" minimum width. Nailing shall be as recommended by flooring manufacturer. T & G flooring shall be blind nailed driving nail at an approximate angle of 50. Space nails every 10" to 12" on center. Install one layer of resin building paper or 15 lb saturated asphalt felt paper over subfloor before installing finished floor.

15. Closets:

- A. Each required linen closet shall have a minimum: Depth 14". Width 18". Number of Shelves five, space 12" on center. The bottom shelf shall be between 18" to 24" above the floor and the top shelf shall be not over 74" above the floor. Construction, 2 x 3 studs (3" way) 16" on center, sheetrock or plaster, both sides applied. Door and hardware shall be same as Section 10a (Doors) and have two 3 x 3 butt hinges and passage lock set.
- B. Each required clothes closet shall have a minimum: Depth, 2', width, 3', clear, inside dimension (both). Construction, 2 x 3 studs (3" way) 16" on center, sheetrock or plaster both sides. Door(s) (Hinged) up to 4' closet width, minimum width 2', 6'6" height, 1-3/8" thick. Over 4' closet width, required double doors, 4' to 5' closet width, minimum 3' framed opening; 5' to 6' closet width, minimum 4' framed opening. NOTE: Folding and sliding doors acceptable if of standard quality.

Hardware, as stated per item #16 Hardware. Height, enclosing walls shall extend from the floor to the ceiling. Hanging space for minimum, adequate to permit 5' clear hanging space; for maximum, shelf shall not be over 74" above floor of room. Shelf and Rod, minimum of one shelf and rod with at least 8" clear space above shelf. The center line of the rod shall be a minimum of 2" from the bottom of the shelf. Shelf minimum width shall be 12" nominal dimension, shelf and rod over 4' in length shall have a center support.

- 16. Kitchen: All kitchen cabinets shall be prefinished stock type wood cabinets unless specified in Work Write Up.
- 17. Hardware: Hardware shall be installed in accordance with manufacturer's directions and shall be installed plumb and true, and secured with proper fastenings so as to make all work rigid and firm. Upon completion, all hardware shall be cleaned and polished and left in perfect operating condition.
 - A. Interior doors shall be installed with two butt hinges 3-1/2" x 3-1/2" and passage lock sets.
 - B. Bathroom or toilet compartment doors shall be provided with "privacy lock" sets.
 - C. Closet doors shall be provided with passage sets.
 - D. All exterior doors shall be hung on 4" x 4" butt hinges not less than 3 and shall be provided with a lock set. Storm or screen doors shall have a safety door check.
 - E. Door knobs shall be centered approximately 38" above floor.
 - F. Positive locking devices shall be provided on all windows.
 - G. Hardware for kitchen cabinets to be choice of owner.
- 18. Wallboard: Wallboard shall be 3/8" or 1/2" gypsum plaster board carefully fitted and sized prior to nailing in place. Installation shall be in accordance with manufacturer's recommendations. Wallboard shall be Gypsum Plaster Board, carefully fitted and sized prior to nailing in place.
 - A. Nails shall be driven with their shanks perpendicular to the face of the board and seated below the surface of the board without breaking the paper, in accordance with the following schedule:

Size	Ceiling	Side Walls	Type of Nail
3/8" & 1/2"	7" O.C.	8" O.C.	1-1/4" GWB Annular ring Flat Head 1/4" diameter.
5/8"	6" O.C.	7" O.C.	1-7/8" 6d cement coat type.

Joint mix shall comply with the recommendation of the manufacturer. A minimum temperature of 55 shall be maintained in the room where the work is done until the cement is completely dry.

- B. Tape application: Follow manufacturer's directions.
 - (1.) Over joints the tape shall be embedded in cement and covered with a thin layer of cement; a second and a third coat shall be applied. Each coat shall be dry before applying the next coat. Each coat shall be featheredged and extended beyond the previous coat, approximately 2". The finish coat shall be sanded lightly and any imperfections filled in prior to any painting and decorating.

- Over nails: See that all nails have been driven so that their heads are below the surface of the board, leaving a dimple in the surface without breaking the paper. Cover mails with three applications of cement, allowing time to dry between each coat. The final coat shall be sanded lightly before application of paint or other decoration.
- (3.) Inside corners shall be reinforced with a quarter round wood molding or with tape imbedded in cement finished as specified in paragraph 1, "over joints," selected by the OWNER in the Work Write Up.

C. Panel Application:

- (1.) 3/8" Install one layer directly on studs.
- (2.) Install one layer 3/8" thick directly on studs. Laminate one layer 3/8" over first panel with compound.
- (3.) Install 1/2" directly on studs or strapping for walls, ceiling.

Patching of stucco or plaster, when called for in the Work Write Up shall be meant to include the removal of all loose material encountered until sound construction is reached, including the removal of rotted or deteriorated lath.

19. Final Inspection:

- A. Just prior to completion of all work under this section, the contractor with the agent of the owner, shall inspect all portions of the work and shall make any required adjustments or corrections to the work, leaving all operable portions in perfect working conditions and all jointing to adjacent materials finished and tight.
- B. It is the intent of this section to furnish and install trim, moldings, fillers, blocking and other related work, to produce a finished and complete appearance to all work of this section.
- C. Careful consideration shall be given to all drawings and specifications of adjoining work to determine work and items required by this section.
- D. All work shall be neatly fitted around pipes or other obstruction.

SECTION H

RESILIENT FLOORING

1. MATERIALS:

- A. Materials including size, thickness, patterns and color to be selected by owner.
- B. Linoleum shall be first-quality material and composed of an oxidized oleoresinous composition, pigments, and fillers and shall have a supporting backing of saturated, clear felt or burlap.
- C. Asphalt Tile shall be first-quality material 1/8" thick composed of a thoroughly blended composition of thermoplastic binder of the asphalt and/or resinous type, asbestos fibers, pigments, and fillers. Tile shall be uniform in thickness and accurately cut, with square true edges. Color, pattern, and size shall be as specified in the Work Write Up. Grease proof asphalt tile shall be used when specified in kitchen areas.
- D. Vinyl Asbestos Tile shall be first-quality material 1/16" or 1/8" thick as specified composed of a thoroughly blended composition of thermoplastic binder, fillers, asbestos fiber and pigments. The binder shall consist of a polyvinyl chloride resin or a copolymer thereof thoroughly blended with suitable plasticizers and stabilizers. It shall be dimensionally stable, thoroughly resistant to alkali, grease, and oils, and be fire resistant. Tile shall be uniform in thickness and accurately cut with square edges.
- E. Vinyl Plastic Flooring shall be first-quality material composed of thermoplastic binder, fillers, and pigments. The thermoplastic binder shall consist of a polyvinyl chloride resin thoroughly blended with suitable plasticizers and stabilizers. Sheet-type shall have a supporting back of clear resin felt. Tile shall be accurately cut with square edges.
- F. Rubber of Vinyl Cove Base shall be 1/8" thick x 4" with molded top set cover, preformed end stops, internal and external corners in color as selected by OWNER.
- G. Adhesives and other application materials shall be those as recommended specifically by the manufacturer of the material specified.

2. INSTALLATION:

- A. Before the installation of any of the resilient floors any previous surface application wax, oil, paint, varnish, old adhesives and flooring must be removed or covered with an underlayment as specified.
- B. New wood subfloors shall be brought to a smooth, even surface a sufficient distance below the finished floor level to allow for the installation of the resilient flooring.
- C. Existing wood floors to receive resilient flooring shall be repaired as follows:
 - (1.) Fill cracks, knots, holes, voids, etc., with a water resistant, non-shrinking, non-crumbling patching compound and trowelled to the proper level.
 - (2.) Replace defective boards with new material.
 - (3.) Renail boards where necessary to make secure.
 - (4.) Where existing floors are in poor condition, an underlayment structural grade plywood of exterior type or untempered hardboard shall be installed over existing floor; thickness as specified. Nail underlayment with cement coated, rosin coated, or ring grooved nails, placed 4" on center on all edges and over the face of each piece.

- D. The resilient flooring must be installed cleaned, waxed, and buffed in accordance with manufacturer's approved specifications.
- E. Temperature of rooms or spaces in which resilient flooring is being applied shall not be less than 60 degrees F. and this temperature shall be maintained for a period of not less than 24 hours before starting to lay the floor surfacing material and shall continue during the laying of said material and for not less than 48 hours after completion.
- F. The resilient flooring materials shall be laid with tight butt joints. The adhesive used for cementing to floor shall be applied far enough in advance of setting to permit the adhesive to reach its initial set. The floor surface shall finish flush with abutting work, (furnish proper thresholds where required). Where colors are different on opposite sides of doors, materials shall join under door. After completion of the work, the floor surface shall be thoroughly cleaned of all excess adhesives. Spaces being surfaced shall be closed to traffic and other work during the laying of floors.

Resilient floors shall not be laid until all other work has been installed to such extent as to avoid damage to the floor work.

SECTION I

CERAMIC TILE

1 MATERIALS:

- A. Mortars: All mortar mixtures and materials used shall be in accordance with current editions of American Standard Specifications by the Tile Council of America. Cement shall be either white or gray as required.
 - B. Dry-Set Mortars: All materials shall comply with requirements of American Standard Specifications for Dry-Set Portland Cement Mortar A 118.1.
 - C. Organic Adhesives: All materials shall comply with requirements of Commercial Standard CS 181-52 of the United States Department of Commerce.
 - D. Ceramic Wall Tiles: All glazed wall tiles shall be 4-1/4" x 4-1/4" standard grade of domestic Stylon Tile or equal. Tile shall be bright glaze or satin glaze including ceramic core base, corners and cap as specified in Work Write Up.
 - E. Unglazed Wall and Floor Tiles: Unglazed ceramic tiles shall be, if grout set, 1/4" in thickness or 3/8" in thickness for thin bed installations. All intersections of the walls and floors are to be formed with 3/8" radius cove. Use factory manufacturer's integral angles to form all trim corners.
 - F. Tile Accessories: All bathroom tile accessories shall consist of the following unless otherwise specified:
 - (1.) 6 x 4-1/4" Duplex Soap and Grab at tub and shower.
 - (2.) 6 x 4-1/4" Paper Holder at Watercloset.
 - (3.) 4-1/4 x 4-1/4 Soap Holder at lavatory.
 - (4.) $4-1/4 \times 4-1/4$ Tumbler and Toothbrush Holder at lavatory.
 - (5.) 2 pair 2-1/2 bar brackets and 2-24" towel rods per bathroom.
 - (6.) Shower rod or tub enclosure as specified.
 - G. Marble Thresholds: Where ceramic floor tile butts other material, shall be laid using thin set Portland Cement bed method.

2. INSTALLATION and WORKMANSHIP:

- A. Conventional Mortar Method: Set, grout, and clean tile in accordance with American Standard Specifications for installation of glazed wall tile, ceramic Mossaic Tile, quarry tile and pavers, with Portland cement mortars, A 108.1, A 108.2, A 108.3.
- B. Dry-Set Mortar Installation: Set, Grout, clean in accordance with American Standard Specifications for installation of ceramic tile with dry-set portland cement mortar, A 108.5.
- C. Organic Adhesive Installation: Set, Grout, and clean in accordance with Proposed Standard Specifications for installation of ceramic tile with water resistant Organic Adhesives.
- D. Lay out tile on floors and lengthwise on walls so that no tile less than one-half size occurs. For height stated in feet and inches, maintain full courses to produce nearest attainable heights without cutting tile. Align joints in wall tile vertically and horizontally. Unless otherwise noted, tile shall be installed to a height of four feet on all walls and five feet over rim line at tub or as specified.

3. COLOR SELECTION:

A. Colors and patterns of wall, floor tiles and accessories are to be selected by owner.

SECTION J

MISCELLANEOUS IRON AND STEEL

- 1. MATERIALS: Metals shall be free from defects impairing strength, durability, or of appearance and of best commercial quality for purposes specified.
 - A. Structural steel shall conform to the standard specifications of the ASTM. latest editions.
 - B. Cast iron shall be of soft gray iron.
 - C. Wrought iron shall conform to the standard specifications, ASTM, latest editions.

FABRICATION and ERECTION:

- A. Concrete filled steel shell columns shall be as manufactured by the Lally Column Company or equal. Bases, caps, and accessories shall be included as required.
- B. Fire Escapes shall conform to the Boston City Building Code for standard fire escapes (Section 1812 of Code) and shall be located, designed, and erected as indicated in the Work Write Up. All members of fire escapes shall be painted with one shop coat of rust-inhibiting paint before erection.
- C. Lintels and other steel structural members shall be provided as called for in the Work Write Up or as necessary and shall be sized to carry the loads bearing upon them. Lintels shall have a minimum bearing of 4" at each end.
- D. Steel stairs shall be fabricated and erected in conformity with the best practice for stair building. Stair work in place shall safely sustain a live load of 100 pounds per square foot, evenly distributed over its area.
- E. Steel area walls at window locations shall be 16 gauge galvanized steel of size noted on drawings.
- F. Iron pipe railings shall be of steel in size and design as shown on drawings.
- G. Wrought iron railings shall be constructed of wrought iron bar stock in conformity with design as shown on drawings and shall be adequately secured in place and made rigid.
- H. Steel windows shall be of rolled steel sections of stock sizes as noted in Work Write Up or as shown on drawings. Windows shall be installed with hardware and screening.
- I. Ratproofing of doors and windows at or near grade shall be as follows:
 - (1.) Doors 0 install non-corrosive metal (minimum .026 gauge 8" wide) to base of door on exterior side.
 - (2.) Windows install not less than .012 gauge non-corrosive wire, maximum opening 1/2". Wire to be installed on a separate frame and secured to existing window frame with hook and eye two sides.

GLASS AND GLAZING

- 1. MATERIALS and SCOPE OF WORK:
 - A. Furnish and install all materials, labor, equipment and accessory items required to complete glazing of all sash, door panes, sidelights, transoms, view windows, etc., where indicated or specified.
 - B. All glass for windows and doors shall comply with Federal Specifications DD-G-451. Glass shall be factory labeled to indicate quality and thickness. Maximum size of pane shall comply with manufacturer's recommendations. Glass panes exceeding 12 inches in least dimension shall be not less than double strength (.118 inch.) and a minimum "B" quality. Glass 12 inches of under shall be single strength clear glass "B" quality unless otherwise noted.
 - C. Glazing compounds shall comply with the following Federal Specifications and Manufacturer's Directions:
 - (1.) Metal Sash TT-GOO410c or TT-P-781a.
 - (2.) Wood Sash TT-P-791a (Type I pure linseed oil putty) (Type II White Lead putty) (Type III elastic glazing compound).
 - (3.) Caulking compound shall be a standard commercial brand with non-staining action which dries to a firm surface but remains elastic underneath. Consistency shall be for either hand or gun application.
 - D. Glass for Skylights and for glazed openings in fire resistant construction shall be 1/4" wire glass.
 - E. Mirrors shall be 1/4" electro-copper back plate glass.

2. INSTALLATION:

- A. All sash must be clean and dry before glazing. Sash shall be primed as specified. To glaze sash, remove broken glass and glazing compound, scrape down to wood and apply coat of thin paint or linseed oil for priming. All sash shall be bedded, securely clipped with glazer points and face glazed in a neat manner. Glazing compound shall be smoothed tightly against glass to assure tight adhesions.
- B. All excess glazing compound shall be removed and all glass left clean.

SECTION 1

STUCCO, PLASTERING, AND PATCHING

- 1. MATERIALS: All materials shall comply with standard specifications of the American Society for Testing Materials, current standards.
 - A. Exterior Stucco shall be standard commercial brands.
 - B. Gypsum Plaster shall be standard commercial brands.
 - C. Cement shall be Portland cement, Type I, C-150.
 - D. Lime shall be hydrated lime.
 - E. Sand shall be clean, hard sand free of clay, loam, or vegatable matter.
 - F. Water shall be potable.
 - G. Keene's cement shall be standard commercial brands.
 - H. Gypsum lath shall be 3/8" thick, plain or perforated, and shall be installed in accordance with manufacturer's recommendations.
 - I. Metal lath for exterior work shall be painted expanded metal reinforcing or painted wire cloth and shall weigh not less than 3.4 pounds per square yard. Installation shall be in accordance with manufacturer's recommendations.
 - K. Wood lath: Existing wood lath shall be securely nailed and wetted down prior to applying plaster.
 - L. Wallboard: See carpentry section.

2. STUCCO APPLICATION:

- A. Mortar for all applications shall consist of one part Portland cement to not less than three nor more than five parts of sand aggregate by volume. Hydrated lime may be used but shall not exceed 10% by weight nor more than 25% by volume of the cement used.
- B. The temperature of the surrounding air shall not be less than 40 degrees F. during application and for at least 48 hours thereafter.
- C. Surfaces to be stuccoed shall be covered with 3.4 pounds per square yard metal lath lapped at end and sides a minimum of 1" nailed 16" on center vertically and 6" on center horizontally. NOTE: Wood surfaces are to be covered with 15 pounds felt prior to application of the metal lath.
- D. Apply in two or three coats. The final coat shall not be applied sooner than seven days after the preceding coat. Before applying the final coat, the surface shall be dampened evenly to obtain uniform suction.
 - (1.) Apply two coats on masonry to a minimum thickness of 5/8".
 - (2.) Apply three coats over wood surfaces to a minimum thickness of 7/8".

3. PLASTERING APPLICATION:

A. Gypsum plaster may contain sand not in excess of three times the weight of the gypsum.

- B. Only Gypsum plaster shall be used on Gypsum masonry.
- C. Apply plaster in three-coat or in two-coat double-up work minimum thickness 1/2".
- D. Gypsum lath shall be applied with long dimension across supports and with end joints staggered.
 - (1.) Nailing nail with 12- or 13-gauge lathing nails having approximate 3/8" heads with nails spaced nor more than 4" on center with a minimum four nails at each stud. Use six nails for 24" wide lath. Length of nail shall be that which will provide at least 1" penetration in horizontal supports and 3/4" penetration into vertical supports.
- E. Gypsum lath shall not be used as a base for Portland Cement plaster.
- F. Patching of stucco or plaster when called for in Work Write Up shall be taken into include the removal of all loose material encountered until sound construction is reached, including the removal of rotten or deteriorated lath. Perimeter of areas to be patched shall be neatly cut back at an angle. Apply plaster in three coats and finish smooth with existing surface ready for painting.

4. ONE HOUR FIRE RESISTANT CONSTRUCTION

- A. Partitions shall be steel or wood 2 x 4 studs, spaced 16" on center covered with wire lath and 3/4" plaster applied to both sides of studs. If of wood, it shall be fire stopped.
- B. Ceiling shall be wire lath and 3/4" plaster. Lath shall be installed on 1 x 3 strapping 12" on center.
- C. Openings shall be protected by 1/4" wire glass in a fixed frame. Wood doors shall be of 1-3/4" solid core with self-closing device.
- D. Public stairway protection shall mean a one-hour fire resistant partition and one-hour fire door or doors.

5. TWO HOUR FIRE RESISTANT BOILER ROOM PROTETION:

A. Ceiling shall be metal lath (3.4 pounds per square yard) nailed to joists with 1-1/2" barbed roofing nails with 7/16" head - 6" on center and finished with vermiculite or Perlite plaster with a minimum thickness of 3/4".

SECTION M

PAINTING AND DECORATING

1. MATERIALS and SCOPE OF WORK:

- A. All labor, materials, equipment and services necessary or incidental to completing all painting, decorating and wall papering are to be completed as shown or implied on plans and specifications.
- B. All materials used shall be the product of recognized reliable manufacturers.
- C. All paint and other finishing materials shall be of good quality and as manufactured by Martin-Senour, Pittsburg Plate Glass, Dupont, Sherwin-Williams, Benjamin Moore, or approved equal.
- D. All materials shall be delivered to the building in unopened original containers bearing the manufacturer's labels.
- E. All materials are to be used as specified by the manufacturer's label directions.
- F. Before proceeding with painting, color samples shall be shown to OWNER for his selection.
- G. The finish coat in kitchens and bathrooms shall provide a durable and washable surface.
- H. Wallpaper shall be as selected by OWNER under allowance listed in the general notes of the Work Write Up.

2. PROTECTION:

- A. Furnish and lay drop cloths in all rooms and areas where painting and finishing is being done.
- B. Paint shall be mixed in suitable containers and all necessary precautions shall be taken to prevent fire.

3 WORKMANSHIP:

- A. Exterior painting shall not be done in rainy, damp, or frosty weather or until the surface has thoroughly dried from the effects of such weather.
- B. Finished work shall be uniform, of approved, color, smooth, and free from runs, sags, defective brushing and rolling. Edges of paint adjoining other materials or colors shall be sharp and clean.
- C. Paint application shall consist of two coats (minimum) on old work; three coats on new, to all surfaces and visible edges. The top and bottom edges of new doors shall be covered with a minimum of one coat.
- D. Wallpaper shall be hung on Walls with all seams butted.

. SURFACE PREPARATION:

- A. Exterior wood shall be free of dirt and loose or peeling paint. Knots and sap streaks shall be covered with a thin coat of shellac. Nail holes and cracks shall be filled with putty after undercoat has been applied.
- B. Exterior Masonry shall be free of oil, grease, loose or peeling paint or other foreign matter. Defective or improper previous coatings must be removed by scraping or sand blasting. Surfaces previously painted with water emulsion, or water-thinned finishes should be thoroughly wire brushed. Masonry cracks shall be cleaned out and patched with mortar similar to the original surface and uniformly textured.

- C. Efflorescense shall be removed by scrubbing affected surfaces with a solution of muriatic acid, and rinsed with clear water and allowed to dry thoroughly.
- D. Metal surfaces shall be absolutely clean and dry, free from wax, oil, grease, or dried soap films. Metal surfaces shall be thoroughly cleaned with sandpaper or steel wool and thinner.
- E. Plaster, Wallboard, Wood, and Masonry: All oil, grease, or loose foreign matter shall be removed. Cracks and open joints shall be cut out and properly filled. All glossy surfaces shall be washed with a milk alkaline solution and rinsed thoroughly. All loose, blistered, or otherwise defective paint shall be removed and edges sanded smooth. Putty or spackle all nail holes, cracks, and other defects after prime coat has dried.
- F. Hardwood Floors: Contractor to sand floors down to original smooth surface or prepare existing, as specified. All floor surfaces to be smooth, clean, dry, with cracks, and holes, filled before application of finish. Floors to be finished with sealer and two coats of Fabulon or equal or as specified.

5. COMPLETION:

- A. At the completion of the work, all paint spots, and oil or grease stains shall be removed from floors, walls, ceilings, windows, and equipment, leaving their finishes in a satisfactory condition.
- B. Contractor shall repaint or retouch any areas which have been damaged during construction work or do not comply with the requirements of the specifications.

SECTION N

PLUMBING

. MATERIALS and INSTALLATIONS: All materials and the complete installation shall be made in accordance with and conform to the requirements of the City of Boston Building Code. The CONTRACTOR shall arrange for all local inspections to meet municipal and utility company requirements and procure and pay for all required licenses, permits, and certificates.

The scope of the work includes the furnishing of all labor, materials, equipment, services and incidentals necessary to complete all plumbing, gas fitting and drainage work in accordance with manufacturers specifications and drawings which are intended to describe and provide for a finished piece of work and what is called for shall be complete in every detail, notwithstanding whether or not every item necessarily involved is particularly mentioned. Also included is the installation of all roof drains, valves, piping, pipe hangers, pipe covering and all related plumbing works as hereinafter specified, intended or indicated, obsolete piping and fixtures shall be removed from premises by the Contractor.

SANITARY WASTE and DRAINAGE PIPING: Above ground shall be standard weight galvanized steel pipe with cast iron drainage fittings, or extra heavy cast iron soil pipe with fittings. All piping passing through the roof shall be flashed with lead or copper. Waste lines, vents, risers and local feeders to be run in direct line as near as possible to new plumbing locations.

A. Sanitary Drainage System:

- (1.) Where called for on plans, a complete new sanitary drainage system within the building and connecting independently into the existing combination sewer outside the building.
- (2.) Provide all vents, soil and wastes as required, connecting all fixtures and drains.

B. Storm Drainage System:

- (1.) Where called for, a complete new storm drainage system within the building and extending independently into the existing combination sewer in the street. Connect to all roof and area drains.
- WATER PIPING: Above ground shall be Type L copper tubing with wrought solder joint fittings.
 Type "L" copper pipe is to be installed from street main to new water meter when specified.
 - A. Valves shall be 150# brass with ends similar to fittings. Valves shall be provided at each piece of equipment to permit removal without shutting off service.
 - B. Unions shall be provided to permit removal of equipment without cutting piping.
 - C. Complete new cold water system within the building starting with the new water service from the meter to street main and connecting to all plumbing fixtures and domestic hot water heater. Risers shall be 3/4" type "L" copper tubing.
 - D. Complete new domestic hot water system within building, extending from hot water heater to specified plumbing fixtures to be 3/4" type "L" copper tubing.
- GAS PIPING: Shall be black iron pipe installed in accordance with the recommendations of the City of Boston Building Code. Provide 125# brass gas stops where required.
- 5. WATER HEATER: Shall be Crane, American Standard, or equal of type and capacity as specified in the Work Write Up. It shall be complete with all controls and with a ten-year tank warranty.

- A. A pressure temperature relief valve shall be provided.
- B. Recovery time for water heater, when heated from a boiler with a summer-winter hook-up, shall be approximately 100° F. in three minutes.
- 6. EXISTING PLUMBING FIXTURES: Existing plumbing fixtures which are to remain shall be placed in good working order. Replace all missing or damaged fittings with new fittings of same design or replace the entire set.
- 7. NEW PLUMBING FIXTURES: Shall be Crane, American Standard, Kohler, or equal or as called for in the Work Write Up and/or drawings.
 - A. Fittings shall be chrome plated, and supplies to each fixture shall be provided with stop valves to permit removal without shutting off service.
 - B. Accessories shall include: Grab Bar and Soap Dish at Bathtub. Paper Holder at Water Closet. Soap Dish at Lavatory. Towel Bar. Mirror and Medicine Cabinet or equivalent enclosed shelf space.

8. PROTECTION:

- A. The plumbing contractor shall properly protect the work under this section to prevent obstruction or damage to the building structure.
- B. All pipe openings shall be closed with caps or plugs during installation.
- C. All equipment shall be tightly covered and protected against dirt, water or mechanical injury and shall be delivered in perfect condition.
- D. Post notice prohibiting use of plumbing fixtures prior to completion.
- E. No plumbing fixtures, devices or piping shall be installed which will provide a cross or interconnection between a distributing supply for drinking or domestic water system and a polluted supply or drainage system.

9. GENERAL:

A. Drainage Systems:

- (1.) All work done by the Department of Public Works shall be considered as part of the plumbing work.
- (2.) End circuit vent pipe from any fixture or line of fixtures, shall be at least three feet or sufficiently above the floor on which the fixtures are located, to prevent the use of the vent line as a waste.
- (3.) All changes in pipe size and direction on conductor, soil or waste lines shall be made with Y's and cleanouts reducing fittings or recessed reducers. Y's and 45 degree fittings or 45 degree combination fittings shall be used wherever possible, use long sweep bends at bottom of stacks.
- (4.) Offsets shall be at an angle of not more than 45 degrees and all horizontal pipe runs shall have a pitch of 1/4 inch to the foot where possible, and not less than 1/8 inch to the foot.
- (5.) Sanitary long sweep bends and Y's shall be used for connections to branch lines for fixtures and T-Y's on vertical runs of pipe only, long turn fittings shall be used wherever possible. Short radious fittings may be installed when in conformity with the Plumbing Code.

- (6.) Furnish and install cleanouts at bottom of all conductor, soil and waste stacks, at every change in direction of conductor, soil and waste piping.
- (7.) All fixtures and drains must be separately trapped and all traps must be vented.

B. Hot and Cold Water Systems:

- (1.) All copper tubing shall be reamed to full inside diameter of pipe.
- (2.) All service pipes, fittings and valves shall be kept a sufficient distance from other work and not less than 1/2 inch between finished coverings on the different services.
- (3.) Provide air cushions at top of all risers, and at each fixture or group of fixtures. Air cushions shall consist of an extension of pipe of same size as riser 24 inches high. Provide shock absorbers as specified, intended or inferred, these shall be Josam, #1480, or approved equal.
- (4.) A 1/2" drain cock shall be provided at bottom of all risers, and at the lowest points of all horizontal runs so that all parts of the hot and cold water piping system may be drawn off.
- (5.) Provide suitable means for expansion for all hot water piping, using swing joints expansion loops, and long turn offsets as required.
- (6.) Provide gate and stop valves in the piping at the connections to equipment, at each fixture.

C. Pipes and Fittings:

- (1.) Soil, waste, vent and conductor piping:
 - (a.) Materials for waste, soil, vent and conductor piping inside the building and exterior to the building connecting into the sewer shall be extra heavy cast iron soil pipe and fittings, bell and spigot, coated or uncoated where required by the Plumbing Code, close grained, sound, cylindrical, free from cracks, sand holes and other defects, and of uniform thickness throughout. It shall not be less than the weights required per lineal foot by the Plumbing Code. Vent piping 2" and smaller in size only may be standard weight galvanized wrought iron pipe with galvanized cast iron fittings. No underground waste shall be smaller than 3 inches in soil pipe size. Where specified, vents and wastes shall be type "L" copper.
- (2.) Hot and Cold Water Piping:
 - (a.) All domestic hot and cold water piping inside the building shall be type "L" hard drawn copper tubing with solder-joint cast bronze fittings, Chase Brass Mueller, Anaconda, Revere or approved equal. Solder may be 95-5% composition.
- (3.) Unions:
 - (a.) In general, all piping connections to equipment in the building shall be provided with unions to permit alterations and repairs. All unions 2 inches in diameter and smaller on copper piping shall be ground joint type, all brass body, bronzed seat, and ground joints, sweat-end type.

(4.) Joints:

(a.) All joints and connections in cast iron bell and spigot pipes shall be caulked and made permanently gas tight and water tight, firmly packed with oakum to a depth of 1-1/2" and remaining space shall be secured with only one pouring of molten lead, 12 ounces for each inch diameter of pipe. All joints in threaded pipe shall be American National taper screw threads. Apply graphite and oil compound to the male threads.

(5.) Gas Piping:

- (a.) Gas piping shall be black iron pipe with 150# malleable iron fittings. Gas cocks shall be heavy bronze Boston pattern.
- (b.) All low points shall be dripped and final fixture connections shall be made with right and left nipples and couplings.
- (c.) If specified the plumbing contractor shall make application to the Gas Company for the new 2" gas service and shall pay for all charges for any work done by the Gas Company.

D. Valves:

- (1.) All gate valves on hot and cold water piping shall be solder-end bronze valve with non-rising spindle solid wedge, made for 224# minimum water pressure, similar to Jenkins Bros. Fig. 1240 or approved equal.
- -(2.) Valves, 1-1/4" and smaller shall be same style with waste plugs, Jenkins Bros. Fig. 1241.
 - (3.) All check valves shall be of the horizontal swing pattern type, solder ends, bronze seat and disc, made 300# water pressure, similar to Jenkins Bros. fig. 1222, or approved equal.
 - (4.) All drain valves shall be 1/2" gate valves, bronze solder end on one side and 3/4" hose on the other side, similar to Jenkins Bros. fig. 1230 or approved equal.
 - (5.) All fixture supplies shall be provided with stops, stops shall be angle or straight loose key compression stops, unless otherwise specified. Finish of stops shall be same as the pipe it serves.

E. Pipe Sleeves, Hangers, and Fixture Supports:

(1.) General:

(a.) Fixture supports and pipe sleeves, pipe hangers and supports for all piping shall be furnished and set by the plumbing contractor and he shall be responsible for their proper and permanent location.

(2.) Pipe Sleeves:

- (a.) Pipe sleeves shall be installed and properly secured at all points where pipes pass through masonry or concrete.
- (b.) Pipe sleeves shall be of sufficient diameter to provide approximately 1/4" clearance around the pipe.
- (c.) Pipes sleeves through concrete walls and floors shall be galvanized wrought iron pipe and shall be made water tight where passing through waterproof surfaces.

(2.) Pipe Hangers:

- (a.) All piping shall be supported from the building structure by means of approved hangers and supports.
- (b.) Pipe shall be supported to maintain required grading and pitching of lines to prevent vibration and to secure piping in place and shall be arranged to provide for proper expansion and contraction.
- (c.) All horizontal piping shall be hung with approved adjustable, wrought iron, wrought copper, or malleable iron pipe hangers, unless otherwise specified, and spaced not over the following distances: Hud and spigot pipe 5'-0" at hub; Copper tubing 6'-0"; Steel and wrought iron pipe 10'-0".
- (d.) Hangers for pipes 2" and smaller shall be the split cast iron ring type with fastening device, or a split ring type with iron extension rod to ceiling.
- (e.) For piping larger than 2 inches, hangers shall be the adjustable clevis type; hanger rods shall be 1/2" with machine threads.
- (f.) Chain, strap, perforated bar or wire hangers will not be approved.
- (g.) Approved gang hangers may be used on pipes running parallel to each other and close together.

(4.) Fixture Supports:

(a.) All fixtures and equipment shall be supported and fastened in an approved manner.

F. Cleanouts:

- (1.) Cleanouts in bell and spigot pipe shall be iron body with brass plug and raised nut, closed gas tight, same size as pipe.
- (2.) Cleanouts under floors or buried pipes shall be brought to the underside of finish floor level and have deck plates at finish floor level, similar to Josam Series #Y-1080 access cover, or approved equal, with polished scoriated brass top.
- (3.) Where accessible, cleanouts shall be installed at all directional changes.
- (4.) Concealed wall cleanouts shall be Josam Series #Y-120 with chrome plated brass cover and nut, approved equal.
- (5.) Between wall or floor where Josam Series #Y-1080 cleanouts are used, furnish and install a #24 gauge galvanized iron sleeve between face of cleanout plug and finished surface.

G. Access Panels:

(1.) Way Loctor, Miami Carey, or approved equal prime coated access panels, for plaster, masonry or tile surfaces shall be furnished and installed, by the contractor installing that particular finish, at each concealed valve or trap. Size 12 inch by 12 inch for one valve and 12 inch by 16 inch for two valves.

H. Roof Drains and Vents:

(1.) Roof drains shall be cast iron with large sump and flange, bottom threaded outlet, removable combined high dome and sediment cup, flashing clamp with gravel stop and deck clamp. Provide cast iron expansion joint with brass sleeve and clamp collar.

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- (2.) All pipes extending through roof shall have minimum extension of 2 feet, as specified in Plumbing Code.
- (3.) Flashing collars for all roof pipes to be installed by plumbing contractor.
- I. Automatic Gas Hot Water Heater:
 - (1.) Where specified, furnish and install approved gas water heater, size and make to be approved by the AGA with a 10 year guarantee.
- J. Auxiliary Equipment Connections:
 - (1.) Items specifically mentioned shall be installed, connected and tested under this section, together with such items specifically mentioned as furnished under other sections, but requiring services such as vent, waste and water to be furnished, installed and tested under this section.
- 1. Provide separate shut-offs to each plumbing fixture.
- L. Clean, repair, relocate or connect all basement drains and rain leaders to existing drains.
- M. Contractor shall purchase and be responsible for protection of all fixtures and materials from loss or damage until complete work is turned over to owner.
- N. Contractor shall connect master gas meter or separate meters to new gas service installed by Boston Gas Company.
- O. All butting required to be done by Contractor to be in workmanship like manner, and plumbing debris to be removed by Contractor.

SECTION O

5.

HEATING AND VENTILATION

- I. MATERIALS and INSTALLATION: All materials and the complete installation shall be made in accordance with and conform to the requirements of the City of Boston Building Code. The CONTRACTOR shall arrange for all local inspections to meet municipal and utility company requirements and procure and pay for all required licenses, permits, and certificates.
- 2. EXISTING HEATING SYSTEM: The heating system, if existing and to remain, shall be thoroughly cleaned and all worn or damaged parts, fittings, and accessories replaced. Work on existing heating systems which are to be expanded, modernized, or altered will be as described in the Work Write Up and/or drawings.
- 8. NEW HEATING: New Heating Systems shall be as called for in the Work Write Up and/or drawings. Shop drawings showing the proposed heating system, including size and location of all heating units, pipe sizes, boiler, its capacity in accord with Manufacturer's specifications for zoning of each unit and controls, shall be submitted by the heating contractor and approved by the OWNER before proceeding with the work.
- 4. CLEANING of SYSTEM: When heating system is completed, system shall be cleaned in accordance with manufacturer's recommendations.
 - HEATING SYSTEMS: Each dwelling shall have one of the following systems to provide sufficient heat to heat all rooms to 72 degrees F. the system shall be either:
 - A. Forced warm air.
 - B. Forced Hot water.
 - C. Steam system.
 - D. Electric radiation.
 - (1.) Each system may use either gas fuel, 2# fuel oil or electric. Installing CONTRACTOR shall obtain and pay for all licenses, fees and permits.

6. WARM AIR HEATING SYSTEM:

- A. System shall be of the forced type with fan. Method of determining capacity of system, i.e., BTU/HR and cubic feet of air per min., to be circulated by the duct system shall be as tabled in National Warm Air Association (NWA) or American Society of Heating Refrigerating and Air Conditioning Engineers Association (ASHRAE).
- B. System ductwork material, gauges of metal and metod of fabrication shall comply with the latest edition of Duct Manual and Sheet Metal Construction Section I-Low Velocity System as published by the Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA).
- C. System shall have return air duct from each floor with adequate cold air return capacity.
- D. Furnaces shall have centrifugal belt drive type of blower, air filter, aluminized steel heat exchanger with a minimum warranty of ten years, non pro-rated type. Furnace shall be HI or LOW boy type as determined by building space conditions. Top, side, front and rear clearances as well as breeching shall meet those of National Fire Protection Association (NFPA). Install fire dampers as required by NFPA and constructed per state and local codes.

- E. Size of breeching shall be as stated in furnace suppliers catalog. Breeching shall have barometric damper installed in same if furnace does not contain built-in barometric dampers.
- F. Furnace shall have HI limit safety cut-off.

7. HOT WATER HEATING SYSTEM:

- A. System shall be of the forced water flow type using circulating pump or pumps. Method of determining capacity of system, i.e., water flow rate (GPM) shall be as stated in latest edition of National Association of Plumbing.
- B. System piping shall be scheduled 40 mild steel pipe or type "L" hard copper. System layout and design shall be one or two pipe type complying with design procedures. System velocity shall be limited to these same standards. Provide manual key operated type air vents at all high points of system. Radiation shall be convectors, radiators-baseboard, or radiant panel. If radiator has no shut-off valve on each, install manual damper on same. Room thermostat shall start and stop burner or cycle pumps. Include operating and HI limit aquastats.
- C. Boiler shall be steel or cast iron construction and shall be in accordance with ASME requirements, to be AGA approved if gas fired, and have IBR ratings.
- D. Gas fired boilers shall have main automatic gas valve, gas pressure regulator, safety pilot, thermocouple, pilot, high limit control and draft hood. Draft hood shall not be altered in any way.

8. STEAM HEATING SYSTEM:

- A. System shall be of the two pipe design type with condensate or vacuum pump system. Method of determining capacity of system, i.e., BTU/HR or EDR (square feet of equivalent direct radiator) shall be as stated in latest edition of ASHRAE Guide.
- B. System piping shall be scheduled 40 mild steel. System layout shall be of the two pipe type, with sizing as tabled in ASHRAE Guide. Pipes shall pitch a minimum of 1" per 20 feet, of run. All end of mains and risers shall be dripped through float and thermostatic traps. Each unit of radiation shall have hand valve or automatic control valve on supply and thermostatic traps on return.
- C. Boilder shall have operating pressuretrol and a separate HI limit pressuretrol. Include combination pressure, altitude gauge. Boiler shall be steel or cast iron construction and shall comply with ASME Specifications, be AGA approved if gas fired and shall have IBR ratings.
- D. Gas fired boilers shall have main automatic gas valve, gas pressure regulator, safety pilot, thermocouple pilot, and have draft hood.

9. OIL FUEL SYSTEMS:

- A. Oil shall be no heavier than commercial Standards Grade #2 with sulphur content complying with same. Oil tanks shall be minimum size of 275 gallons for above ground installation and 500 gallons for underground installation, and shall be piped and installed to comply with Flammable Liquids Ordinance, Building Code and ASA Standards.
- B. Clearance distance of oil tank to burner, tank to property lines, pipe sizes, tank locations, tank installation, and maximum sizes of tanks shall be as required by latest edition of Flammable Liquids Ordinance and by Chief of Fire Department, City of Boston. All new construction systems shall also be in compliance with latest published standards of Underwriters' Laboratories (UL#3).

10. BOILERS:

A. All boilers shall be of either cast or steel construction. Cast iron boilers shall be as listed in the Institute of Boiler and Radiator Manufacturer's, I.B.R. All steel boilers shall be as listed in the Institute of Boiler and Radiator Manufacturer's (S.B.I.) latest edition. All boilers shall bear ASME stamp. Gas fired boilers shall bear AGA stamp.

11 BASEBOARD RADIATION AND FIN TUBE RADIATION:

- A. All radiation shall be as approved, rated, and as listed in the Institute of Boiler and Radiation Manufacturer's (S.B.I.) latest edition.
- 2. MECHANICAL VENTILATION: Each dwelling shall have adequate ventilation, gravity or forced type capable of preventing build up or odor, high humidity or smoke. Ventilation duct or fan discharges shall be located and installed so as not to create a public nuisance. All bathrooms located in interior of dwelling and/or not having operable type windows of size or area required by Building Code, shall have mechanical exhaust fans-fans shall be wall or ceiling mounted type-quiet operating centrifugal blower wheel type. Bathroom, shower room, kitchenette, and laundry room and water closet ventilation must have adequate air changes that exhaust to the outdoors.

All fans shall bear certification of the Air Moving and Conditioning Association, Inc., AMCA, and shall have this seal on same. All fans shall have belt guards, unless completely enclosed in metal housing.

SECTION P

ELECTRICAL

1 GENERAL:

- A. The work included in this contract consists of furnishing all labor, material and services necessary for the installation, erection and connection of all circuits and equipment specified and/or shown, in a first class workman-like manner.
- B. The installation of electric wiring and equipment shall conform with legal regulations, the National Electric Code and the requirements of the Boston Edison Company.
- C. All work under this contract shall be inspected from time to time by a duly authorized member of the Boston Building Department's Electrical Inspection Section, and all other municipal bureaus having jurisdiction over this work. Upon completion of this work a certificate of inspection by the Electrical Inspection Department shall be furnished.
- D. All electrical fixtures sw., plates, etc., are to be selected by owner and mounted by this
- E. The Contractor shall arrange for and supply temporary lighting and wiring for other contractors.

MINIMUM REQUIREMENTS:

- A. Every habitable room of each dwelling unit shall contain minimum, one duplex convenience receptacle for every 12 lineal feet of wall space, including doorways.
- B. Every kitchen or kitchenette shall have minimum two 20 amp. appliance receptacles and a minimum of two duplex convenience receptacles.
- C. Every laundry area shall contain (minimum one) 20 amp. appliance receptacle. Laundries containing dryers shall have three wire, 30 amp. grounded receptacles.
- D. Every bathroom shall contain at least one switched fixture. Where switch cannot be installed on exterior wall, it shall be located, in an inaccessible area away from bathtub and lavatory.
- E. Every watercloset compartment, laundry room, furnace room, basement, kitchen and each entrance shall contain one wall switched electric fixture, unless specified otherwise.
- F. Lighting for public halls, basement and entrances shall be connected to public meter.
- G. Basement lighting shall be multi-switched from each entrance.
- H. Front entrance and public hall lighting shall be controlled by time clock in basement.
- 1. This contractor shall install all electrical components for complete heating system, two way communication and magnetic door opening system.
- J. Fusestats or fusetrons shall be installed.

MATERIALS and WORKMANSHIP:

- A. Materials shall be new and of the best quality obtainable of the kinds specified.
- B. All electrical devices and material shall bear the stamp of the Underwriter's National Association approval.

C. All electrical work shall be done in accordance with the latest rules and regulations of the National Board of Fire Underwriters.

4 EXISTING FOUIPMENT

- A. Existing electrical equipment throughout the building which becomes superfluous shall be disconnected and removed.
- B. Existing materials found to be in good condition and complying with the National Board of Fire Underwriters may be left in service unless otherwise specified.

5. WIRING:

A. Wiring shall be as follows:

- (1.) Concealed branch circuits Type TW wire in EMT of Type-AC armored cable (BX)*.

 *As required by City Code in all cases.
- (2.) Exposed branch circuits Type TW wire in EMT or in approved surface raceway*.
- (3.) Service and feeders Type RH/RW in EMT or in rigid galvanized conduit or approved service entrance cable, minimum size 3 #6's.
- B. Wiring shall be run concealed wherever possible. Where wiring must be run exposed, it shall be run fastened to ceiling or walls with approved fasteners.
- C. Minimum wire size shall be NO. 14 AWG.
- D. Minimum wire size shall be NO. 12 AWG for appliance circuits.
- E. Minimum wire size shall be NO. 10 AWG for feeders to panels.
- F. Ordinary 419 on receptacles.
- G. No more than ten receptacles shall be located on a 15A branch circuit.
- H. No more than four receptacles shall be located on a 20A appliance circuit.
- 1. Dishwashers and disposals shall be located on separate circuit.

6. WIRING DEVICES:

- A. Where 15 amp, 125 volt duplex receptacles are required, provide any brand which is U.L. approved.
- B. Where 20 amp. 250 volt receptacles are required, provide any brand which is U.L. approved.
- C. Single pole room lighting switches shall be any brand which is U.L. approved. Three-way and four-way switches shall be any brand which is U.L. approved.

7. SERVICE, FEEDER, and SAFETY SWITCHES:

- A. Service, feeder, and safety switches shall be U.L. approved.
- B. Provide type "S" fuses as required in all disconnect switches.

8 PANEL BOXES:

- A. Panel boxes shall be enclosed code gauge sheet steel cabinets with doors and catches.
- B. Panel circuits shall be protected by automatic circuit breakers or type "S" fuses.
- 9. LIGHTING FIXTURES: The CONTRACTOR shall provide all lighting fixtures complete with lamps, glassware, mounting hardware, frames, and trim, stems, ballasts, sockets, etc., to provide a complete operating fixture at each location as called for in the Work Wtite Up. Where an allowance is included for purchase of lighting fixtures, CONTRACTOR shall carry such sum in his contract.
- 10. FURNACE CONNECTION: Electrical connections required for the heating plant are to be made by the CONTRACTOR and included in the heating contract.
- 11. CUTTING, FITTING, and PATCHING: All cutting of walls, floors, ceilings, partitions, etc., for all the passage of electrical work; closing of all superfluous openings around same in connection with the work under this item; including the removal of all debris caused thereby, shall be performed by the CONTRACTOR performing the electrical work in a workmanship like manner.

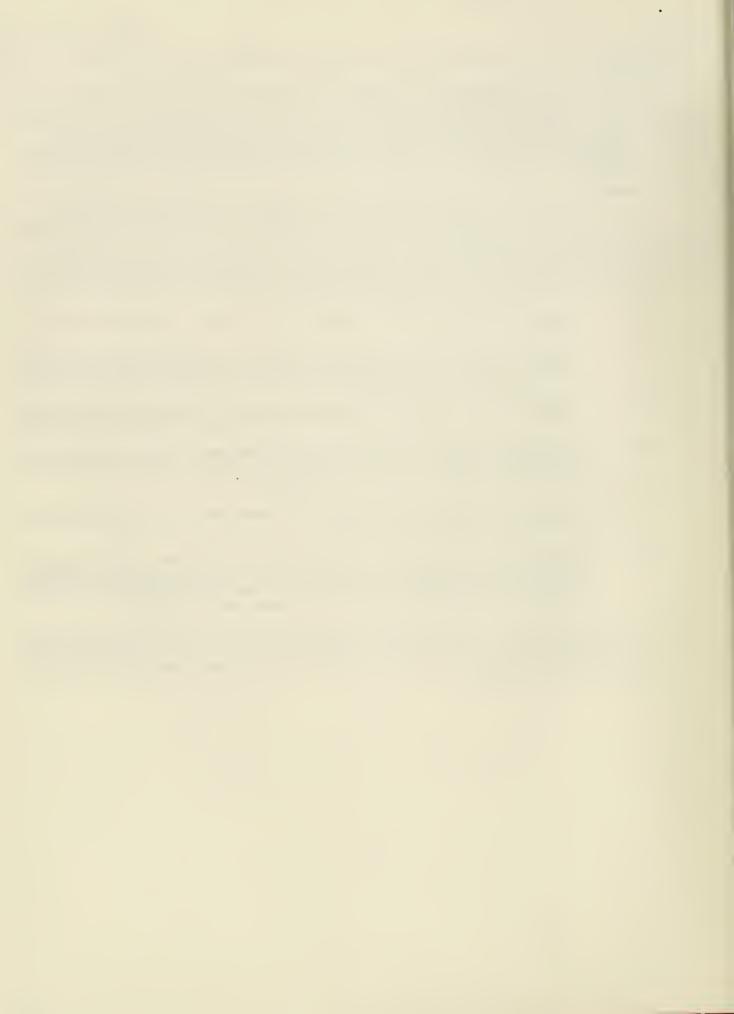
SECTION Q

LANDSCAPING

- 1. MATERIALS and WORKMANSHIP: All materials to be used shall be suitable for their intention and installed in the manner indicated by sender.
 - A. Fences: Shall be either chain link, ornamental iron or cedar screen or as specified and located on drawings.

B. Sitework:

- (1.) Repair and/or replace all existing concrete walks, stairs, landings, curbs and retaining walls as specified.
- (2.) All paved area (bituminous concrete) shall be as indicated on plans, with requirec storm drains.
- (3.) Lawn and planting areas shall be graded in such a way as to drain away from the building.
- (4.) In areas where new paving is specified, drainage outlets shall be installed of suitable size, and material and connected to storm drains in accordance with all local codes.
- (5.) Existing trees to be saved shall be carefully pruned of all dead diseased and broker branches. All cuts of over 1-1/2" shall be painted with an asphalt base tree paint.
- (6.) Fill material shall be free of debris and other detrimental material. All fill shall be compacted to a density that will avoid damaging settlement to lot improvement. Fill shall be placed when conditions are favorable.
- (7.) Loam shall be a fertile, natural, and friable topsoil, and of a quality acceptable to the Boston Redevelopment Authority.
- (8.) Seeding shall be Scott's Mixture, Kingston Mixture, or equivalent, and shall be applied according to the manufacturer's specifications. All areas, unless otherwise indicated, shall be rolled and seeded to grass. It shall be the CONTRACTOR'S responsibility to produce a thick, uniform turf, free of weeds and bare spots.
- C. REPLACEMENT: All new paving plants, shrubs, grass or trees installed by this CONTRACTOR, in an impaired, dead or dying condition following the end of the first growing season shall be removed and replaced. Replacement materials and method shall be identical to the original, at no cost to the owner.







REDEVELOPER'S STATEMENT FOR PUBLIC DISCLOSURE 1

A. REDEVELOPER AND LAND		
1. a Name of Redeveloper:	•	
b. Address and ZIP Code of Redeveloper:		•
c. IRS Number of Redeveloper:		
2. The land on which the Redeveloper proposes to the purchase or lease of land from	enter into a contr	act for, or understanding with respect to,
BOSTON REDEVELOPMENT AUTHOR		
(Name of Loc	ol Public Agency)	
in SOUTH COVE URBAN RENEWA (Name of Urban Renewal or		
theme of broad remediation	Reacocsopmens In	
in the City of BOSTON is described as follows 2	, State of	MASSACHUSETTS
18 described as follows *		•
•		•
3. If the Redeveloper is not an individual doing busi indicated below and is organized or operating und		
A corporation.		
A nonprofit or charitable institution or corpor	ation.	
A partnership known as		
A business association or a joint venture kno	wn as	
A Federal, State, or local government or instr	umentality thereof	r.
Other (explain)		
4. If the Redeveloper is not an individual or a govern	nment agency or in	nstrumentality, give date of organization:
5. Names, addresses, title of position (if any), and nature	and extent of the in	sterest of the officers and principal members.

shareholders, and investors of the Redeveloper, other then a government agency or instrumentality, are set forth as

follows:

If space on this form is inadequate for any requested information, it should be furnished on an attached page which is referred to under the appropriate numbered item on the form.

² Any convenient means of identifying the land (such as block and lot numbers or street boundaries) is sufficient. A description by metes and bounds or other technical description is acceptable, but out required.



- a. If the Redeveloper is a corporation, the officers, directors or trustees, and each stockholder owning more than 10% of any class of stock!
- b. If the Redeveloper is a nonprofit or charitable institution or corporation, the members who constitute the board of trustees or board of directors or similar governing body.
 - c. If the Redeve loper is a partnership, each partner, whether a general or limited partner, and either the percent of interest or a description of the character and extent of interest.
 - d. If the Redeveloper is a business association or a joint venture, each participant and either the percent of interest or a description of the character and extent of interest.
- e. If the Redeveloper is some other entity, the officers, the members of the governing body, and each person having an interest of more than 10%.

NAME, ACORESS, AND ZIP CODE

POSITION TITLE (If ONY) AND PERCENT OF INTEREST OR DESCRIPTION OF CHARACTER AND EXTENT OF INTEREST

6. Name, address, and nature and extent of interest of each person or entity (not named in response to Item 5) who has a beneficial interest in any of the shareholders or investors named in response to Item 5 which gives such person or entity more than a computed 10% interest in the Redeveloper (for example, more than 20% of the stock in a corporation which holds 50% of the stock of the Redeveloper; or more than 50% of the stock in a corporation which holds 20% of the stock of the Redeveloper):

NAME, ADDRESS, AND ZIP CODE

DESCRIPTION OF CHARACTER AND EXTENT OF INTEREST

7. Names (if not given above) of officers and directors or trustees of any corporation or firm listed under Item 5 or Item 6 above:

B. RESIDENTIAL REDEVELOPMENT OR REHABILITATION

(The Redeveloper is to furnish the following information, but only if land is to be redeveloped or rehabilitated in whole or in part for residential purposes.)

If a corporation is required to file periodic reports with the Federal Securities and Exchange Commission under Section 13 of the Securities Exchange Act of 1934, so state under this Item 5. In such case, the information referred to in this Item 5 and in Items 6 and 7 is not required to be furnished.

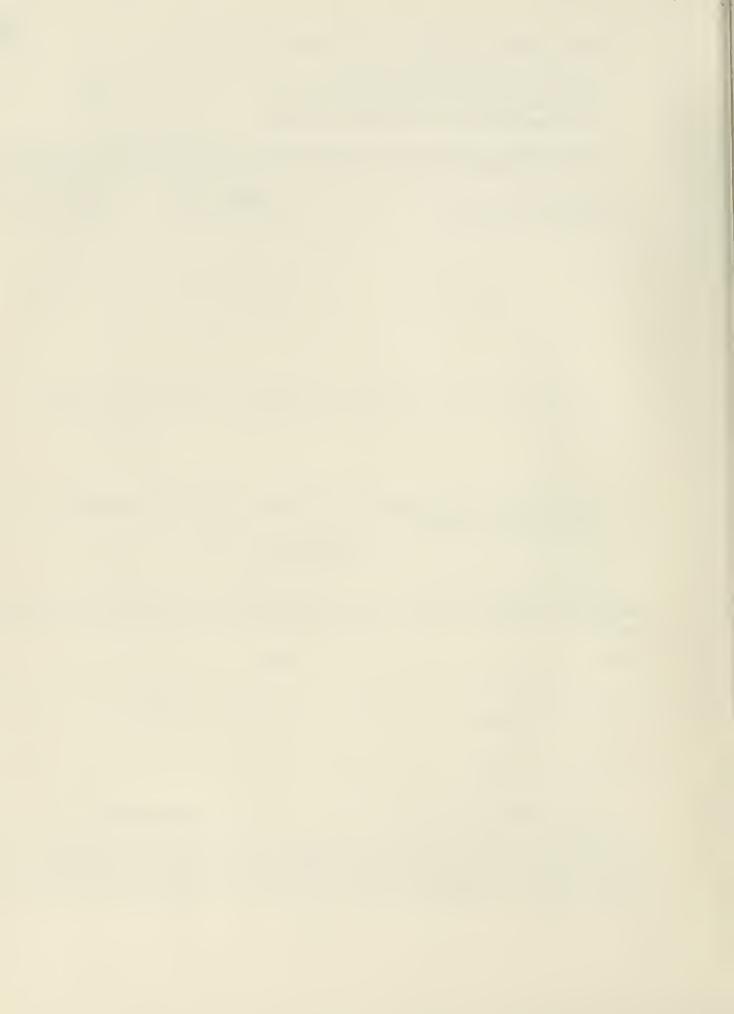


2. a. State the Redeveloper's e (if to be sold) for each ty	stimate of the average more and size of dwelling t	unit involved in such rede	velopment or rehabilitation:
TYPE AND SIZE OF DWELLING UNIT		ESTIMATED AVERAGE MONTHLY RENTAL	ESTIMATED AVERAGE SALE PRICE
		\$	3
•	•		
		•	
b. State the utilities and part	ing facilities, if any, in	icluded in the foregoing es	stimates of rentals;
•			
•			
c. State equipment, such as t going estimates of sales p		chines, air conditioners,	if any, included in the fore-
			if any, included in the fore-
	rices:		if any, included in the fore-
	rices:		if any, included in the fore-
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going estimates of sales p I (We)1 ertify that this Redeveloper's Stater and belief.2 ated: Signature	CERTIFICAT	re is true and correct to that ated:	ne best of my (our) knowled

1. State the Redeveloper's estimates, exclusive of payment for the land, for:

of the United States.

the same to contain any false, lictitious or fraudulent statement or entry in a matter within the jurisdiction of any Department



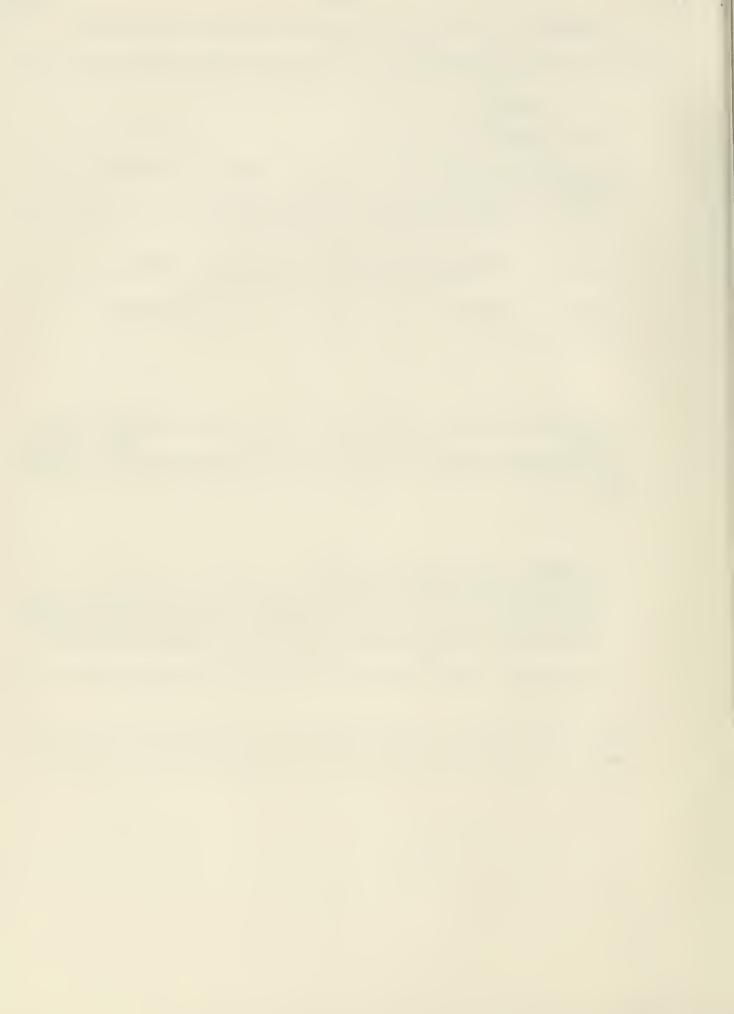
REDEVELOPER'S STATEMENT OF QUALIFICATIONS AND FINANCIAL RESPONSIBILITY

(For Confidential Official Use of the Local Public Agency and the Department of Housing and Urban Development. Do Not Transmit to HUD Unless Requested or Item 8b is Answered "Yes.")

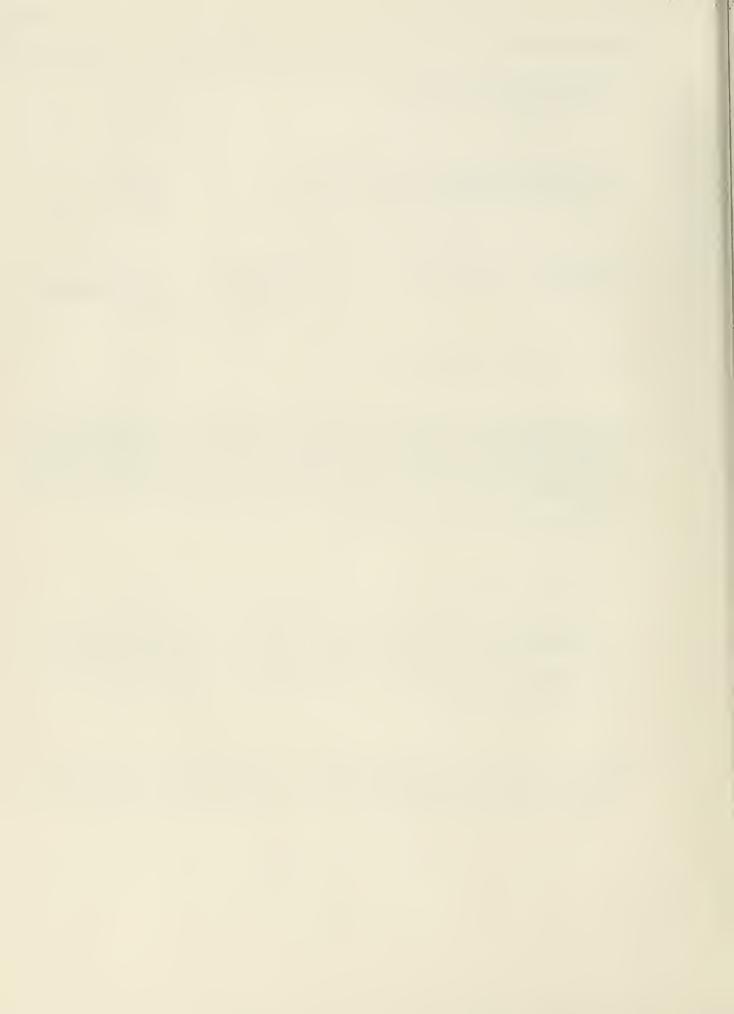
- 1. a. Name of Redeveloper:
 - b. Address and ZIP Code of Redeveloper:
- 2. The land on which the Redeveloper proposes to enter into a contract for, or understanding with respect to, the purchase or lease of land from

- 3. Is the Redeveloper a subsidiary of or affiliated with any other corporation or corporations or any other firm or firms?

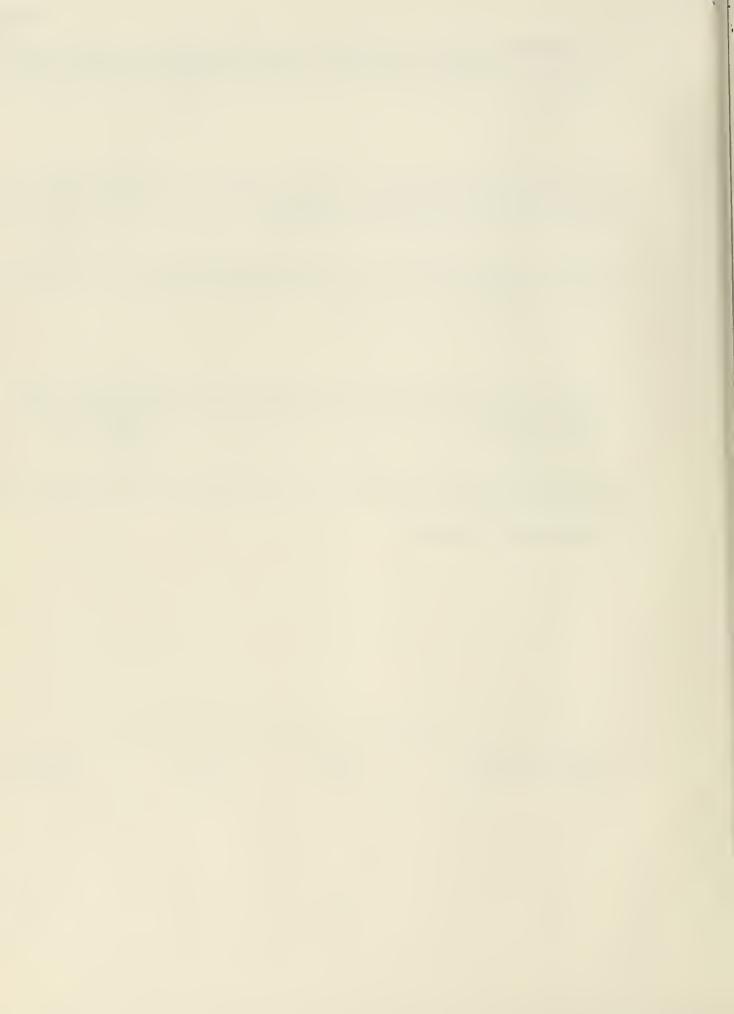
 If Yes, list each such corporation or firm by name and address, specify its relationship to the Redeveloper, and identify the officers and directors or trustees common to the Redeveloper and such other corporation or firm.
- - b. Name and address of auditor or public accountant who performed the audit on which said financial statement is based:
- 5. If funds for the development of the land are to be obtained from sources other than the Redeveloper's own funds, a statement of the Redeveloper's plan for financing the acquisition and development of the land:



banks: ME, ADDRESS, AND ZIP CODE OF BANK loans from affiliated or associated corporation ME, ADDRESS, AND ZIP CODE OF SOURCE sale of readily salable assets: SCRIPTION s and addresses of bank references:	MARKET VALUE	AMOUNT S MORTGAGES OR LIENS \$
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s the Redeveloper or (if any) the parent comor:		
developer or said parent corporation, or any of lders or investors, or other interested parties edeveloper's Statement for Public Disclosure at en adjudged bankrupt, either voluntary or invol Yes, give date, place, and under what name.	the Redeveloper's office (as listed in the response ad referred to herein as funtary, within the past 1	ers or principal members, share es to Items 5,6, and 7 of the "principals of the Redeveloper
•		
		edeveloper" been indicted for YES NO
Yes, give for each case (1) date, (2) charge, (3		_
		1.11.4
)	convicted of any felony within the past 10 year	s the Redeveloper or anyone referred to above as "principals of the Reconvicted of any felony within the past 10 years? (es, give for each case (1) date, (2) charge, (3) place, (4) Court, and (3) planation deemed necessary. dertakings, comparable to the proposed redevelopment work, which have



	b. If the Redeveloper or any of the principals of the Redeveloper has ever been an employee, in a supervisor capacity, for construction contractor or builder on undertakings comparable to the proposed redevelopmen work, name of such employee, name and address of employer, title of position, and brief description of work:	ry t
10.	Other federally aided urban renewal projects under Title I of the Housing Act of 1949, as amended, in which the Redeveloper or any of the principals of the Redeveloper is or has been the redeveloper, or a stockholder officer, director or trustee, or partner of such a redeveloper:	
11.	If the Redeveloper or a parent corporation, a subsidiary, an affiliate, or a principal of the Redeveloper is to participate in the development of the land as a construction contractor or builder:	
	a. Name and address of such contractor or builder:	
	b. Has such contractor or builder within the last 10 years ever failed to qualify as a responsible bidder, refused to enter into a contract after an award has been made, or failed to complete a construction or development contract?	
	c. Total amount of construction or development work performed by such contractor or builder during the last three years: \$	
	General description of such work:	
	d. Construction contracts or developments now being performed by such contractor or builder:	
	IDENTIFICATION OF CONTRACT OR DEVELOPMENT LOCATION AMOUNT COMPLETED	



e. Outstanding construction-contract bids of such contractor or builder:

AWA	RO	ING	AG	ENC	Y

AH	THUDI	
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DATE OPENED

12.	such contractor or builder for the performance	ence, financial capacity, and other resources available to e of the work involved in the redevelopment of the land, he personael, the nature of the equipment, and the general
13. a	proposal is being made or any officer or emp functions or responsibilities in connection w covered by the Redeveloper's proposal is be	e Local Public Agency to which the accompanying bid or loyee of the Local Public Agency who exercises any ith the carrying out of the project under which the landing made available, have any direct or indirect personal opment or rehabilitation of the property upon the basis of
b	any other public official of the locality, who approval of the carrying out of the project unis being made available, have any direct or is	e locality in which the Urban Renewal Area is situated or exercises any functions or responsibilities in the review or der which the land covered by the Redeveloper's proposal indirect personal interest in the Redeveloper or in the y upon the basis of such proposal?
	If Yes, explain.	·
		er's qualifications and financial responsibility (other than e attached heroto and heroby made a part hereof as follows:
	CERT	IFICATION
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ertify t f the R	hat this Redeveloper's Statement of Qualificati	ons and Financial Responsibility and the attached evidence nsibility, including financial statements, are true and correct
ated: _		Dated:
<u>-</u> .	Signature	Signature
	Title	Tide
	Address and ZIP Code	Address and ZIP Code

Penalty for False Certification: Section 1001, Title 18, of the ILS. Code, provides a fine of not more than \$10,000 or imprisonment of not more than five years, or both, for knowingly and willfully making or using any false writing or document, knowing the same to contain any false, fictitious or fraudulent statement or entry in a matter within the jurisdiction of any Department

If the Redeveloper is a corporation, this statement should be signed by the President and Secretary of the corporation; if an individual, by such individual; if a partnership, by one of the partners; if an entity not having a president and secretary, by one of its chief officers having knowledge of the financial status and qualifications of the Redeveloper.

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